Explorations in Art and Archaeology of South Asia:

Essays Dedicated to N. G. Majumdar

Edited by

DEBALA MITRA

सत्यमेव जयते

Directorate of Archaeology and Museums, Government of West Bengal

Calcutta, 1996

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1996

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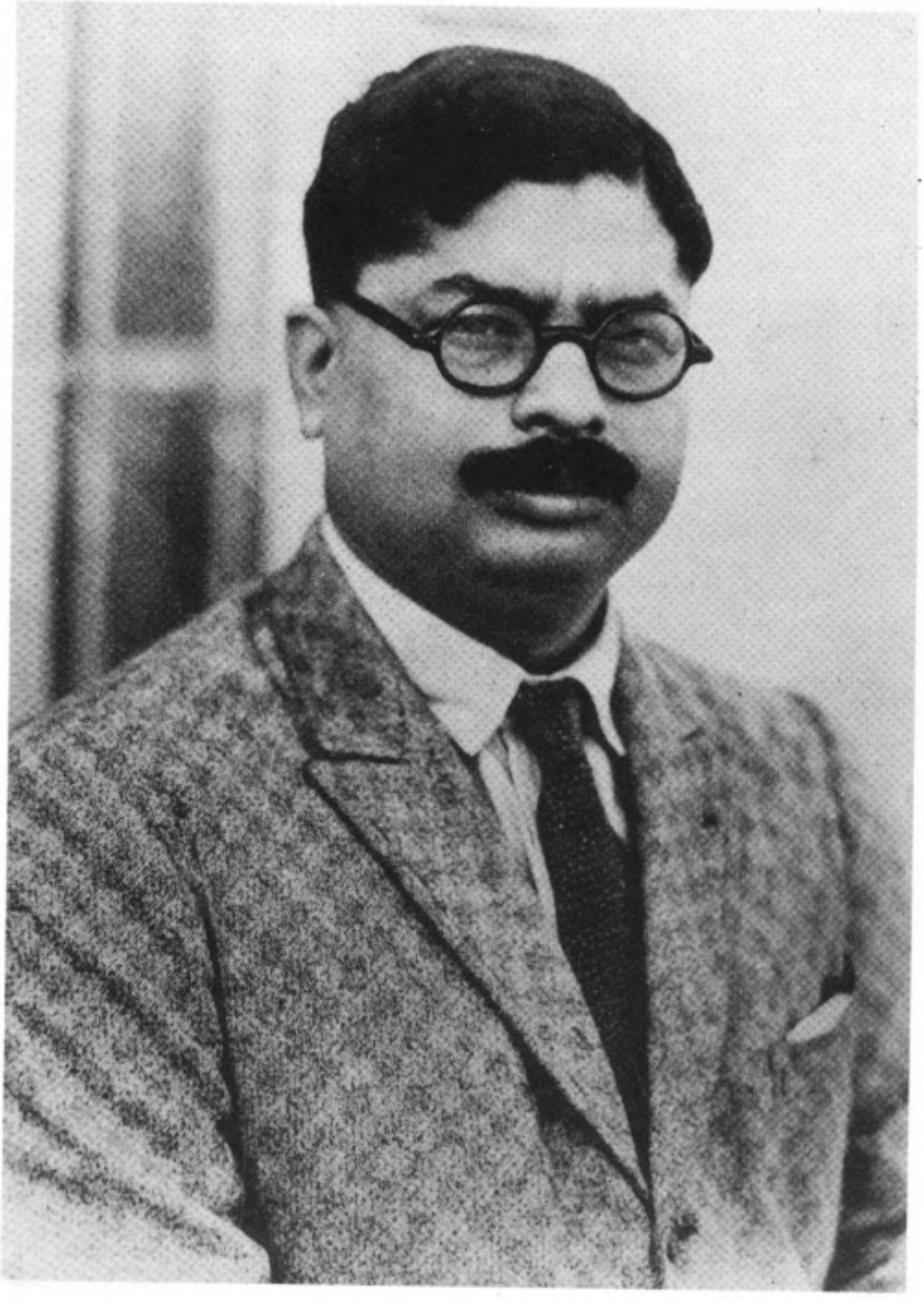
Directorate of Archaeology and Museums, Government of West Bengal

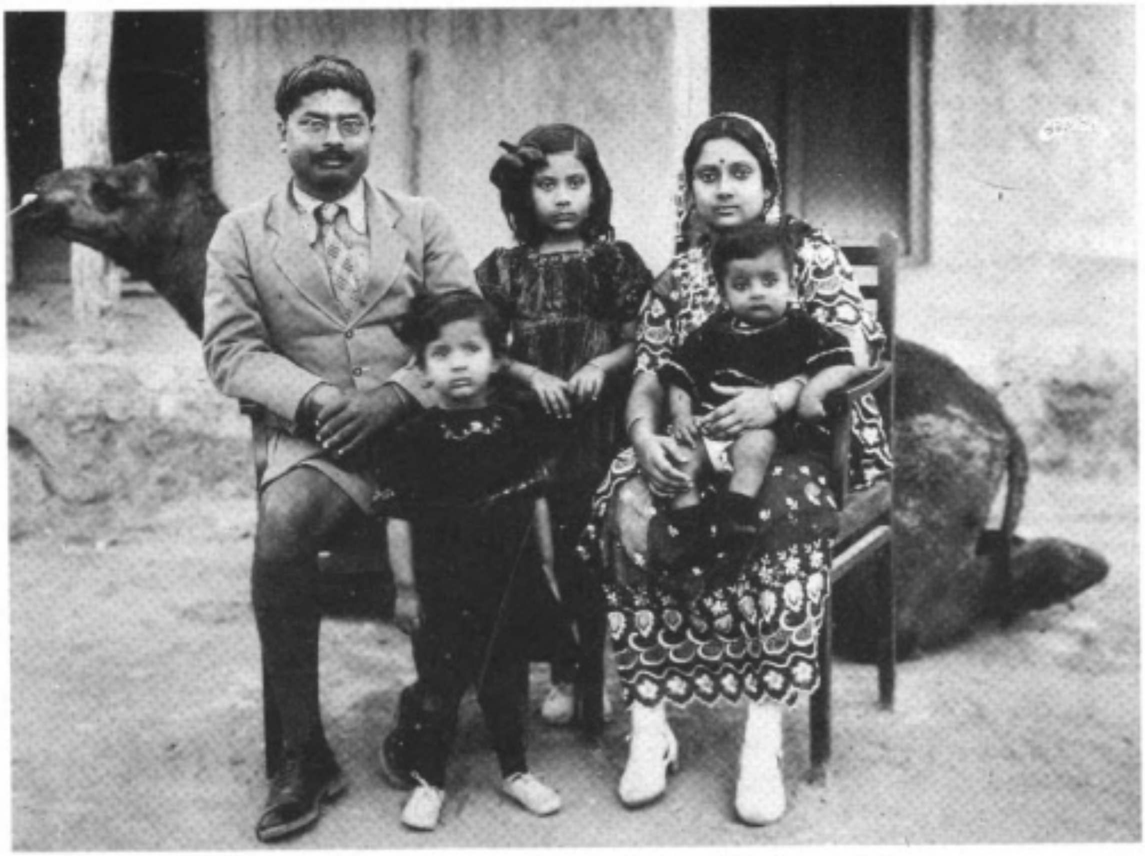
Published by Directorate of Archaeology and Museums, Government of West Bengal,
33 Chittaranjan Avenue, Calcutta 700 012

Printed at Saraswaty Press Limited
11 B.T. Road, Calcutta 700 056

Price: Rs. 800.00



Nani Gopal Majumdar



N. G. Majumdar with his family

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Foreword

There is an in-built tendency in our historiography to undermine the relevance to Indian scholarship in the development of archaeological studies in the subcontinent. Not surprisingly, we tend to overlook the siminal contribution of many of our pioneering archaeologists. Nani Gopal Majumdar (1897-1938) is now an almost forgotten name. But, it is largely due to his significant researches, complexities of the Harappan Civilization are much better understood to-day. Majumdar's writings on the history and archaeology of Bengal are still very relevant.

I am happy that the Directorate of Archaeology and Museums, Government of West Bengal, is bringing out a collection of essays on different aspects of Indian art and archaeology as a tribute to N. G. Majumdar, on the eve of his birth centenary. This is about time we take a fresh look at the work of our pioneering archaeologists and historians and identify new areas of research.

I take this opportunity to pay my homage to the memory of a great scholar. I wish this venture all success.

Calcutta, 23.5.96

(Buddhadeb Bhattacharjee)
Minister-in-charge, Departments of Home
and Information & Cultural Affairs,
Government of West Bengal

Editor's Preface

The present book is dedicated to the memory of Nani Gopal Majumdar (1897-1938) as a tribute to an erudite and versatile scholar whose contributions to various areas of protohistorical and historical archaeology are indeed outstanding. He was noted for his indomitable energy and undaunted courage. There has hardly been any calamity of greater magnitude in the history of Archaeological Survey of India than the murder of Majumdar by dacoits during his potential explorations and excavation in the arduous and hazardous terrain by the side of the Kirthar Range in Sind (now in Pakistan). His tragic death in his camp near Roheljo-kund just off the Gaj Nai was a tremendous loss in the sphere of protohistoric and historic archaeology including epigraphy, numismatics, art, iconography and conservation, apart from museology.

A brilliant product of the University of Calcutta, Majumdar made his mark by publishing learned papers even before his graduation and continued to write in prolific number till his untimely death. His biographical profile and list of publications, published in this volume, amply attest this view. With a strong grounding in Sanskrit which he inculcated with devotion since his school days and also his intensive and serious post-graduate studies in Ancient Indian History and Culture, he could establish himself in the area of Epigraphy and made significant contributions in this field. Even before he joined the Archaeoloical Survey of India in 1927, Majumdar, as the Curator of the Varendra Research Society's Museum at Rajshahi (now in Bangladesh), prepared the third volume on inscriptions of the Chandras, the Varmans and the Senas and of Īśvaraghosha and Dāmodora.

His profound scholarship, intelligence, utmost sincerity and zeal were recognized by Sir John Marshall during his training in the excavation at Mohenjo-daro. In this connection, I record here an interesting piece of information given to us (Mr. B.K. Thapar, Dr. Ziauddin A. Desai and myself) at Dhaka in 1973 by Dr. M.A. Ghafur, the then Director of Directorate of Archaeology of Bangladesh (now Professor, Department of Arabic & Persian, University of Chittagong, Bangladesh). This particular incident was narrated to Dr. Ghafur by Mr. Hamid Kuraishi at Karachi. One day when a British friend of Sir John Marshall came to Marshall's camp at Mohenjo-daro, he found N.G. Majumdar arguing with John Marshall. As soon as Majumdar had left Marshall, the irritated friend asked John Marshall, 'How could you tolerate the audacity of this native?' Marshall's reply was: 'You have seen one side of the coin, not the other side; he is not only a scholar but a promising archaeologist.' Marshall's faith in the erudition of Majumdar obviously prompted him to select Majumdar for writing on the profuse inscriptions of Sanchi in as many as five Chapters in *The Monuments of Sanchi*, a voluminous book by Sir John Marshall and Alfred Foucher.

N.G. Majumdar's merit as a man and archaeologist is from the pen of Mr. Krishna Deva who intimately knew him, first as a trainee in field archaeology in Majumdar's excavation at Kauśāmbī and later on as a Scholar of the Archaeological Survey of India during the explorations and excavation in the expedition to Sind where Majumdar was killed. Three of the contributors to this volume—Dr. Gregory L. Possehl, Mr. B.K. Thapar, and Dr. Louis Flam who for many years conducted his explorations and excavations in the area of Sind where Majumdar had worked—have furnished their assessment on the performance of Majumdar in the field-work and writings.

The response to my requests to scholars, in India and abroad, for contributing papers to be dedicated to the memory of N.G. Majumdar was indeed considerable. In fact, Dr. Flam, whose name had kindly been intimated to me by Dr. Possehl, went to the extent of suggesting the title of this volume. I am grateful to all the contributors, some of whom wrote their papers in spite of their other urgent commitments and preoccupations.

I am beholden to Dr. Gouriswar Bhattacharya, a great admirer of N.G. Majumdar's scholarship, for his assistance in various ways including addressing the European scholars and going through some of the papers. Due to my illness I was not in a position to go through the proofs. I was very much relieved when my daughter, Dr. Mallar Mitra, despite her preoccupations and responsibilities, volunteered to undertake proof-reading. I crave the indulgence of the contributors and readers for any shortcomings, particularly when I could not check many of the references due to the non-availability of the required books in the libraries of Calcutta.

I am particularly grateful to Mr. Dipak Kumar Ghosh, Principal Secretary, Department of Information and Cultural Affairs, Government of West Bengal, for graciously agreeing to the suggestion of Dr. Gautam Sengupta, Director of Archaeology and Museums, to get the volume published by the Dirctorate of Archaeology and Museums, Government of West Bengal, and to have it printed at Saraswaty Press Ltd., Calcutta. I heartily thank Dr. Gautam Sengupta for extending his help at the serious juncture of not getting an appropriate Calcutta-based publisher. In fact, the delay in the publication of the volume is due to the non-availability of the suitable publisher. Being apprehensive of further delay, I did not dare to send the proofs to the contributors. I apologize to them.

I thank sincerely Saraswaty Press Ltd., Mr. Sanat Sarkar, Mr. Nirmal Pal and the concerned staff for their close co-operation and printing this voluminous book within a short period.

Editor's Preface

It is a matter of profound sorrow that Mr. B.K. Thapar, a distinguished contributor to this volume, passed away on the 6th September, 1995. He was particularly interested in the publication of this volume due to his great admiration for the scholarly works of N.G. Majumdar. I regret very much that the volume which is under printing could not be completed and handed over to him. I am specially grateful to him for training me in the methods of field archaeology in the excavations at Ropar and Maski. After his retirement as the Director General of the Archaeological Survey of India in 1981, he became Secretary, Indian National Trust for Art and Cultural Heritage (INTACH), and Chairman, Centre for Cultural Resources and Training. In his demise we have lost an eminently-talented archaeologist whose expertise in the fields of Neolithic, Harappan, Chalcolithic and Megalithic cultures of India is immense.

Debala Mitra

01.04.1995

Biographical Profile of Nani Gopal Majumdar (1 December 1897-11 November 1938)

Mallar Mitra

PARENTAGE AND PLACE OF BIRTH

Born in Debrajpur, District Jessore (now in Bangladesh), Nani Gopal Majumdar was the eldest son of Dr. Baradaprasanna and Sarojini Majumdar.

ACADEMIC QUALIFICATIONS

1918: B.A.	Studied for B.A. in Sanskrit College, Calcutta and obtained First Class Honours in Sanskrit; was awarded a Silver Medal (for standing Second) and a Scholarship from Calcutta University.
1920: M.A.	After graduation he joined the newly-introduced course in Ancient Indian History and Culture (he was one among the first regular batch of this subject) at Calcutta University, completed his M.A. in 1920, securing First Class marks and was awarded a Gold Medal for obtaining the first position.
1921-23	Was awarded by the Calcutta University the Griffith Memorial Prize for an interesting thesis on *Vajra*, the Premchand Roychand Studentship for a thesis entitled 'A List of Kharoshṭhī Inscriptions' and ultimately the Mouat Gold Medal.

MARRIED LIFE

Married to Snehalata Mukherji, the eldest daughter of Prof. Nalinimohan Sastri of Murarichand College, Sylhet, and was subsequently blessed with two daughters (Dipti and Ila) and a son (Tapas), the last being the youngest.

PROFESSIONAL CAREER

1921-24	Lecturer in the Department of Ancient Indian History and Culture, Calcutta University.
December 1924	Was appointed as Curator, Varendra Research Society's Museum, Rajshahi (now in Bangladesh). During the period of his Curatorship in this Museum, he wrote *Inscriptions of Bengal*, Vol. III.
1925	Was selected for archaeological training by Sir John Marshall, the then Director-General of Archaeology in India.

Nov. 1925- March 1926	Was on deputation from Varendra Research Society and participated in the excavation at Mohenjo-daro under Sir John Marshall.
Nov. 1926- March 1927	Participated in the excavation at Mohenjo-daro under Rai Bahadur Daya Ram Sahni.
18 June 1927	Was appointed as Assistant Superintendent (since redesignated as Deputy Superintending Archaeologist) for Exploration, Archaeological Survey of India (Station: Simla).
1927-28	Assisted E. J. H. Mackay in his excavation at Mohenjo-daro.
1928	On the 2nd January 1928 he went from Mohenjo-daro to Jhukar and encamped there for about 2 months for conducting excavations at Jhukar in Sind (now in Pakistan).
	[H. Hargreaves, who edited the *Annual Report of the Archaeological Survey of India 1927-28*, noted, 'In conclusion I would record my obligations to Rai Bahadur Daya Ram Sahni and Mr. Majumdar for valuable assistance in the preparation of this Report.']
22 April- 9 May, 1929	Officiated as Superintendent (since redesignated as Superintending Archaeologist), Central Circle, Archaeological Survey of India, on the appointment of J. A. Page as Deputy Director General of Archaeology.
11 May 1929	Was transferred to Calcutta as Assistant Superintendent, Archaeological Survey of India.
12 May- 16 July 1929	Officiated as Superintendent, Eastern Circle, in the leave vacancy of K. N. Dikshit.
18 June 1929	Was confirmed in the service.
26 July 1929	Was transferred to Simla as Assistant Superintendent for Exploration.
1929-1931	Discovered during his explorations in Sind approximately sixty-two sites, of which no less than thirty-five were protohistoric and chalcolithic.
	[About these discoveries J. F. Blakiston, the then Director-General of Archaeology in India, commented, 'In 1930-31 Mr. Majumdar completed a reconnaissance survey in Sind started several years ago; the results of this tour are of paramount interest inasmuch as it is now quite evident that there are many more sites belonging to the

	same cultural epoch as Mohenjo-daro and Harappa awaiting the excavator's spade' (*Annual Report, Archaeological Survey of India 1930-34*, p. XXXIII). The results of these explorations and excavations were published in his remarkable work, *Explorations in Sind*.]
13 Sept. 1931	Was transferred to Calcutta as Assistant Superintendent, Archaeological Section, Indian Museum.
30 Sept. 1931- 26 Apr. 1932	Officiated as Superintendent, Archaeological Section, Indian Museum, on the retirement of Ramaprasad Chanda.
March 1934- 2 Nov. 1934	Held additional charge of the Eastern Circle, Archaeological Survey of India, Calcutta, as K. N. Dikshit went on leave.
1934-35	Carried out excavations at Meḍh or Lakhindarer Meḍh, an isolated mound in the village of Gokul, about 1 mile to the south of the ruins of Mahasthangarh (now in Bangladesh) and at the mound of Baigrām in District Dinajpur; sunk exploratory trench at Jāt Talā within the village of Mahanad in District Hooghly; discovered an interesting brick temple at Deulia in District Burdwan; reorganised Archaeological Galleries of the Indian Museum on modern lines and rearranged entirely the Museum's Prehistoric Gallery.
June 1935	Was confirmed as Superintendent, Archaeological Section, Indian Museum and continued to hold charge of the Eastern Circle, Archaeological Survey of India.
1935-36	Conducted excavations at Gokul and explorations at Lauriya-Nandangarh.
1936-37	Conducted excavations at Lauriya-Nandangarh.
1937-38	Discovered prehistoric tools from Durgapur in District Burdwan and conducted excavations at Kosam in District Allahabad.
1 October 1938	Was deputed for a period of six months to complete a survey of protohistoric sites of the Indus Valley Civilization which he had so successfully carried out during 1927-31. He started work in the foothills of the Kirthar range and the adjoining highlands and plains in Sind; discovered during his three weeks' exploration half-a-dozen chalcolithic sites.

11 November 1938	In the morning he was shot dead by a band of dacoits, which had attacked his camp, leaving behind his wife, two daughters and a son of tender age.

DISTINGUISHED POSITIONS

February 1936	Was elected a Fellow (then the youngest) of the Royal Asiatic Society of Bengal and served on the Council of the Society.
December 1937	President, History Section, Prabasi Banga Sahitya Sammelan (Bengali Literary Conference) held at Patna.

List of Publications of Nani Gopal Majumdar

Compiled by Mallar Mitra

I. BOOKS

1. *Nālandā Copper-Plate of Devapāladeva*, Monographs of The Varendra Research Society, Rajshahi, No. 1 (Rajshahi, April 1926), 31 Pages.
2. *Inscriptions of Bengal, Vol. III containing Inscriptions of the Chandras, the Varmans and the Senas and of Iśvaraghosha and Dāmodara* (Rajshahi, Bengal. 1929), 200 pages, and Plates 1-16.
3. *Explorations in Sind, Being a report of the exploratory survey carried out during the years 1927-28, 1929-30 and 1930-31*, Memoirs of the Archaeological Survey of India, No. 48 (Delhi, 1934), 172 pages and Plates I-XLVI.
4. *A Guide to the Sculptures in the Indian Museum, Part I: Early Indian Schools* (Delhi, 1937), 106 pages, Pls. I-XI and Frontispiece.
5. *A Guide to the Sculptures in the Indian Museum, Part II: The Graeco-Buddhist School of Gandhara* (Delhi, 1937), 137 pages, Pls. I-XIV, Frontispiece and 1 map.

II. ARTICLES

A. ARCHAEOLOGY: EXCAVATION, EXPLORATION AND CONSERVATION

1. 'Excavations at Jhukar', *Annual Report of the Archaeological Survey of India 1927-28* (Calcutta, 1931), pp. 76-83 and Pls. XXVII-XXX.
2. 'Explorations in Sind', *Annual Report of the Archaeological Survey of India 1929-30* (Delhi, 1935), pp.110-21 and Pls. XLVI and XLVII.
3. 'Explorations in Sind', *Annual Reports of the Archaeological Survey of India for the years 1930-31, 1931-32, 1932-33 and 1933-34,* Part One (Delhi, 1936), pp. 90-106 and Pls. XXXIV-XXXVII.
4. 'Conservation—Bengal', *Annual Report of the Archaeological Survey of India 1934-35* (Delhi, 1937), pp. 20-21.
5. 'Conservation—Assam', *Annual Report of the Archaeological Survey of India 1934-35* (Delhi, 1937), p. 21.

6. 'Explorations in Bengal', *Annual Report of the Archaeological Survey of India 1934-35* (Delhi, 1937), pp. 40-43 and Pls. XVIII and XIX.
7. 'Conservation—Bengal', *Annual Report of the Archaeological Survey of India 1935-36* (Delhi, 1938), pp. 16 and 17.
8. 'Conservation—Assam', *Annual Report of the Archaeological Survey of India 1935-36* (Delhi, 1938), p. 17.
9. 'Explorations at Lauriya-Nandangarh', *Annual Report of the Archaeological Survey of India 1935-36* (Delhi, 1938), pp. 55-66 and Pls. XIX-XXIII.
10. 'Excavations at Gokul', *Annual Report of the Archaeological Survey of India 1935-36* (Delhi, 1938), pp. 67-69 and Pls. XXIV-XXVII.
11. 'Excavations at Lauriya-Nandangarh', *Annual Report of the Archaeological Survey of India 1936-37* (Delhi, 1940), pp. 47-50 and Pls. XXI-XXIV.
12. 'Prehistoric and Protohistoric Civilization' in *Revealing India's Past A Co-operative Record of Archaeological Conservation and Exploration in India and Beyond*, ed. Sir John Cumming, (London, 1939), pp. 91-117, 197-199 (Notes), 1 map and plates.

B. EPIGRAPHY

13. 'Buddhagayār duikhāni śilālipi' (in Bengali), *Sāhitya-Parishat-Patrikā*, Vol. 23, No. 1 (Calcutta, Bengali year 1323), pp. 69-74, Pl. on p. 80.
14. 'Navāvishkṛita Sūryyavarmmār Śilālipi' (in Bengali), *Sāhitya-Parishat-Patrikā*, Vol. 23, No. 4 (Calcutta, 1323), pp. 283-96 and Pl.
15. 'Haraha Stone-Inscription', *The Indian Antiquary*, Vol. XLVI (Bombay, 1917; Reprint, Delhi, 1985), pp. 125-27.
16. 'Samāja', *The Indian Antiquary*, Vol. XLVII (Bombay, 1918; Delhi, 1985), pp. 221-23.
17. 'Inscription of Udayaśrī (Patna Museum)', *The Journal of the Bihar and Orissa Research Society*, Vol. V (Patna, 1919), pp. 143 and 144.
18. 'Patna Museum Inscription of Jayasena', *The Indian Antiquary*, Vol. XLVIII (Bombay, 1919; Reprint, Delhi, 1985), pp. 43-48.
19. 'The Lakshmaṇasena Era', *The indian Antiquary*, Vol. XLVIII (Bombay, 1919), pp. 171-76.
20. 'Epigraphic Notes', *The Indian Antiquary*, Vol. XLVIII, (Bombay, 1919), pp. 206-211.

   1. Mañchapuri Cave Inscription of the time of Khāravela, pp. 206 and 207.
   2. A Passage in the Inscriptions of the Maitrakas of Valabhi, pp. 207-208.
   3. Śrâvastî and Tarkkâri of the Silimpur Inscription, pp. 208-211.

21. 'The Muṇḍeśvarī Inscription of the time of Udayasena: The year 30', *The Indian Antiquary*, Vol. XLIX (Bombay, 1920; Reprint, Delhi, 1985), pp. 21-29.
22. 'Chinna Inscription of the reign of Śrī-Yajña-Sātakarṇi', *Journal and Proceedings of the Asiatic Society of Bengal*, New Series, Vol. XVI, 1920 (Calcutta, 1921), pp. 327-30 and Pl. XVI.
23. 'The Suë Vihār Copper-plate of the reign of Kaniṣka', *Sir Asutosh Mookerjee Silver Jubilee Volumes*, Vol. III, Orientalia-Part I (Calcutta, 1922), pp. 459-474 and Plate.
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    1. Shakardarra Inscription of the year 40.
    2. Loriyan Tangai Inscription of the year 318.
    3. Wardak Vase Inscription of the year 51.
    4. Taxila Copper plate of Patika.
    5. Mahaban Inscription of the year 102.
    6. Manikiala Inscription of the year 18.
25. 'Maner Copper-plate of Govindacandra, V.E. 1183', *Journal and Proceedings of the Asiatic Society of Bengal*, New series, Vol. XVIII, 1922 (Calcutta, 1923) pp. 81-84.
26. 'Sāñchi Inscription of Śrīdharavarmman', *Journal and Proceedings of the Asiatic Society of Bengal*, New Series, Vol. XIX, 1923 (Calcutta, 1924), pp. 337-44.
27. 'An Inscribed Copper Ladle from Hazara', *Journal and Proceedings of the Asiatic Society of Bengal*, New Series, Vol. XIX, 1923 (Calcutta, 1924), pp. 345-347 and Pl. 14.
28. 'A List of Kharoṣṭhī Inscriptions', *Journal and Proceedings of the Asiatic Society of Bengal*, New Series, Vol. XX, 1924 (Calcutta, 1925), pp. 1-39.
29. 'Notes on a stone-inscription of Bengali characters of the reign of Sitarama Raya from Muhammadpur, district Jessore', *Annual Report of the Varendra Research Society, 1925-26*, p. 9.
30. 'A New Brāhmī Inscription from Mathurā', *The Indian Historical Quarterly*, Vol. II, No. 3 (Calcutta, 1926; Reprint, 1985), pp. 441-46 and Pl. facing p. 441.
31. 'Rohitāgiri of the Rāmpāl Copper-plate', *The Indian Historical Quarterly*, Vol. II, No. 3 (Calcutta, 1926; Reprint, 1985), pp. 655-56.

32. 'Peshawar Museum Inscription of the year 168', *Epigraphia Indica,* Vol. XIX, 1927-28 (Calcutta), pp. 202-03 and Pl. 27.
33. 'A Kharoshṭhi Inscription from Jamalgarhi of the year 359', *Epigraphia Indica*, Vol. XIX, 1927-28 (Calcutta), pp. 203-05 and Pl. 28.
34. 'Inscription at Semarsal', *Annual Reports of the Archaeological Survey of India for the years 1930-31, 1931-32, 1932-33 and 1933-34*, Part one, p. 140.
35. 'Nālandā inscription of Vipulaśrīmitra', *Epigraphia Indica*, Vol. XXI, 1931-32 (Delhi), pp. 97-101 and Pl. 16.
36. 'Irda Copper-plate of the Kamboja King Nayapaladeva', *Epigraphia Indica*, Vol. XXII, 1933-34 (Delhi, 1938), pp. 150-59 and Pl. 19.
37. 'Nandapur Copper-plate of the Gupta year 169', *Epigraphia Indica*, Vol. XXIII, 1935-36 (Delhi, 1940), pp. 52-56 and Pl. 7.
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39. 'Four Copper-plates from Soro', *Epigraphia Indica*, Vol. XXIII, 1935-36 (Delhi, 1940), pp. 197-203.
    A. —Plate of Mahārāja Śambhuyaśas; the year 260, pp. 201-202 and Pl. 28.
    B. —Plate of Sōmadatta; the year 15, p. 202 and Pl. 28.
    C. —Another Plate of Sōmadatta; the year 15, pp. 202-203 and Pl. 29.
    D. —Plate of Mahārāja Bhānudatta, the year 5, p. 203 and Pl. 29.
40. 'The Bajaur Casket of the reign of Menander', *Epigraphia Indica*, Vol. XXIV, 1937-38 (Delhi, 1942), pp. 1-8, Pls. 1 and 2.
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Pl. 20.42. Terracotta plaque depicting churning of milk or curd by a lady, Paharpur (copyright: Indian Museum, Calcutta)
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Gautam Sengupta.

Pl. 21.1 a and b (a) Front view of a plaque carved with figures on a fossilized bone & (b) back view of the plaque, Mangalkot (District Burdwan, West Bengal), now in the State Archaeological Museum, West Bengal (copyright: Directorate of Archaeology, West Bengal)

Pl. 21.2. Sandstone image of Vāsudeva, Devangarh (District Nawadah, Bihar), now in Patna Museum (after C.R.P. Sinha, *Early Sculpture of Bihar*, Patna, 1980, Pl.26)

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Pl. 21.5. Metal image of Ṛishabhanātha, Chausa (District Bhojpur, Bihar), now in Patna Museum (copyright: American Institute of Indian Studies, Varanasi)

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Pl. 21.13. Black stone image of Neminātha, Rajgir, Bihar (copyright: Archaeological Survey of India)

Pl. 21.14. Stone image of Pārśvanātha or Supārśvanātha, Patna, in the collection of Gopikrishna Kanoria (after F.M. Asher, *op. cit.*, Pl. 4)

Pl. 21.15. Dark-grey stone image of Narasiṁha, Shahkund (District Bhagalpur, Bihar) (after P.C. Singh, *Journal of the Asiatic Society*, 1963, Pl. facing p. 82)

Pl. 21. 16. Black stone *chaturmukha-liṅga* at Vaisali, Bihar (copyright: Gautam Sengupta)

Pl. 21.17. Reddish stone image of Lakulīśa from District Murshidabad (West Bengal), now in Asutosh Museum of Indian Art, Calcutta University (copyright: Asutosh Museum of Indian Art, Calcutta University)

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Pl. 21.19. Dark-grey stone image of Buddha, Nalanda, now in Nalanda Museum (copyright: Archaeological Survey of India)

Pl. 21.20. Sandstone image of Buddha, Biharail (District Rajshahi, Bangladesh), now in Rajshahi Museum (after S.K. Saraswati, *op. cit.*, Pl. 4)

Pl. 21.21. Sandstone head of Buddha, Kumrahar, now in Patna Museum (copyright: American Institute of Indian Studies, Varanasi)

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Adalbert J. Gail
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Debala Mitra
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Pl. 26.22. Khondalite image of Maitreya from Hātikhāl, now in Sculpture-shed, Lalitagiri (copyright: ASI)

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Pl. 26.32. Khondalite image of a Tathāgata (?) with eight Bodhisattvas, found on the later floor of the ambulatory (or court) of Temple 5, Ratnagiri (copyright: ASI)

R. Nagaswamy

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M.C. Joshi

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Pl. 28.7. Stone image of Śrī or Tripurā as a slayer of a demon, Halevid (copyright: Archaeological Survey of India)

Mallar Mitra

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Pl. 29.2. Bronze image of Bhūtaḍāmara, Tibet, now in Hermitage Museum, St. Petersburg (after Pl. XVI, 2, of the *Introduction à l'iconographie du Tântrisme Bouddhique*, Paris, 1975, by Marie-Thérèse de Mallmann)

Marianne Yaldiz

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Gerd J. R. Mevissen

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D. R. Das

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B. N. Mukherjee

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Afroz Akmam

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R. Sengupta

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1

Memories

Tapas Majumdar

'Bandāyinō sun, kamandē pirgōsun
Dostē tirōsun
Didār karōsun, khalmish marōsun, galiyā tamōsun
Lagatē sagāsun
Piral Fakirē, Shir jan Amirē
Nēkir Jayirē.'

To the field shall I go, and gather *kamand* (sugar cane)
For you my beloved friend!
My eyes shall be fixed on you, as I become stone and
earth, and drop down on the door step.
Others will tread over my body.
Piral Fakir, Shir jan Amir
Grieves for you!

(from a Brāhūī pastoral song collected by Nani Gopal Majumdar at Mohenjo-daro, October 1928; translation reconstructed from his notes)

I do not know why the haunting refrain of the old Brāhūī song that father had collected from one Mohammed Rafique of Nichar, Kalat (Baluchistan), comes to mind persistently as I sit down desperately trying to recall his presence of nearly sixty years ago. Father had written out the lines neatly and carefully in the Bengali script in one corner of his field notebook and then tried out the English translations. I surmise that the song had a plaintive tune (Mohammed Rafique would probably have sung it to him) that had moved father strongly enough and had somewhere struck a chord. Perhaps he had felt that he too had travelled to those distant fields to gather the *kamands* of his dreams and his mind had turned for a moment to thoughts of mortality. Anyway that old notebook became, as I was to discover many years later, my mother's diary in which she decided to record what was to be her own private expedition, a 'first' of a kind, when she chose to accompany father to Sind in the cold season of 1929-30 with all her three children. She was then not yet 23. Her first two were daughters. I was the youngest, then just turning one.

I do not recall, naturally, the camp life of that 1929-30 expedition. But my mother's diary records the details of some of our adventures and misadventures that used to be told and retold to friends and relatives in our childhood days. I avidly listened to these tales in which I often figured, unfortunately, not always with great distinction. Reading that diary again, I now realize how father must have been worried almost to death that time having to cope simultaneously with so many things. His very determined young wife's daily household needs were frugal, but always difficult to meet because even the village shops were a civilization away. My own frequent attacks of high fever with convulsions, without medical help in sight, were unnerving. On top of everything, of course, were his daily excursions mainly on camel and horseback, endlessly prospecting for archaeological sites among the many mounds that abounded the sandy country around our camp at Kharo. Only a few of these mounds would prove to be really ancient, others being merely history's decoys, as it were. So at the end of a long day's outing father would usually return empty-handed and crestfallen to his make-shift home that was ready to boil over with the problems of the day. He had to sort them out as best he could. In the event, I find he would often turn into a part-time homœopath for the night. For this he would draw on his own past experience as assistant to his father. My grandfather had been a rising homœopathic practitioner of Calcutta. But he had died in his prime, one day, leaving a large and wholly unprepared family to the sole care of his eldest son, my father, who was then himself a very young man. Father obviously had to learn to cope with life (and death) early.

It is always difficult for a son to judge objectively his father's life even when over half a century has passed. It is even more difficult in my case because not only was he my childhood hero but also he was a very complex person quite unlike the people I was apt to meet in Calcutta's everyday middle-class life.

In fact, looking back now I feel that father had almost systematically acquired the capacity of living two or possibly three completely different lives without making basic compromises in any. For one thing, the pace and direction of his almost unremitting professional exertions did not seem to change at all on account of his domestic worries—which I now know had been always quite a handful. As for my own little contributions to these worries, my mother's diary shows that I must have tried my best (in all innocence, of course) during the 1929-30 explorations in Sind to be the kill-joy of the family! I find in these pages that my two elder sisters—themselves little children—are praying plaintively for a miracle cure for me; father spending sleepless nights pouring over *materia medica* in candle light to seek a remedy; mother suddenly becoming desperately homesick on my account, regretting her 'foolhardy' decision to travel with father. But any of this apparently does not disturb the routine of father's meticulous surveys of the mounds day after day. And in the end, there is joy in the camp—the search is rewarded with the discovery of Amri, which father predicts might prove to be the most significant link discovered in the Harappa-Mohenjo-daro chain. 'When I saw Amri,' father told my mother, 'I felt I had at last found *Amrita* (the mythical nectar that gave immortality to the gods).'

My early memory of Sind, as I have said, is that of an infant and the memory was fed and nourished by what I could take in sitting in my mother's lap. Only later did I have the benefit of my mother's diary which I discovered one day quite accidentally, and my father's memoirs, *Explorations in Sind*. Sometimes I imagine I can clearly remember the milk-white asses grazing by the hills and the sunny sand, the cumbrous camel that would start moaning from the moment that it was made to sit down and would not stop until allowed to stand up again with us at its back, the brilliant green flights of parrots to whom I would call out incessantly in sheer delight: but all this may as well be only memory implanted by tales of the kind that the children in our times were kept on being told through their waking hours until they thought they had seen it all themselves!

But I do recall fairly clearly life with father from 1935 onwards until that fateful autumn of 1938 when he went away, this time without us, for the terrain by the Kirthar Hills that he had planned to cover was known to be difficult and camp life not only austere as usual but also hazardous. How hazardous it could be was known fully only on that tragic morning of the 11th November, 1938. As his favourite orderly (and my childhood friend and guide) Sadardin was to report to us later, father was just finishing breakfast when he heard gunshots. In fact the bandits, a marauding band from the nearby 'native' State of Kalat in Baluchistan, had opened a fusillade of fire-arms on the tents from a hilltop. The bullets were coming through and had already hit the surveyor of the party Mr. Chatterji on one arm and the photographer Mr. Gupta on the palm of the hand. To digress here a little on how some things were done those days—the same tents were later to be lent to a Calcutta University archaeological expedition, as the archaeologist Kunja Govinda Goswami recorded, with the bullet holes that had not been mended and even the blood stains that had never been washed off! However, to go back to Sadardin's account, the gunshots merely infuriated my father for he never had a sense of physical fear. 'They are making a big mistake,' he told Sadardin and rushed out to tell them so. They were indeed making a big mistake thinking that this was a treasury party with a good stock of guns and cash. As he came out in the open he was cut down by bullets hitting him from all sides before any one knew what was happening. Then the firing suddenly stopped and they swarmed down from the hills. Sadardin, faithful as ever, rushed out to his side but his eyes were already closed. He only murmured what Sadardin thought was my name once or twice: father had gathered his last *kamand* from the field. 'It was a bad mistake. I never knew that it was a learned scholar camping out like that!', the leader of the bandits had said later in court. They had been caught after a plane sent out by the Government searched them out in the hills, and were extradited from Kalat to British territory. The arm of Imperial Law was long.

I was left, in a way alone, to cherish my other memories of brief days spent with father. I can still recall the rigours of life in tents at Lauriya-Nandangarh in Bihar near the Nepal border. Father loved that life. I mostly only pretended to love it too as I accompanied him to the excavation site, to Aśoka's Pillar, to the *triveni* confluence. Actually, what I liked was his company. I had taken some books with me but the only one I remember to have read was a children's *Mahabharata* in Bengali. Every night I had to tell a story from it; my parents kept assuring me it was all new to them. Father said that he was learning the names of the epic characters from me; in exchange, I remember, I had to learn difficult English words like 'literature' and 'antiquities'. I remember too an earlier visit to Bhubaneswar in Orissa in 1935 and the picnic near the mysterious caves of Udayagiri and Khandagiri. One memory of Bhubaneswar stands out. We had gone to the famous temple and the equally famous spring at Gauri Kunda. There was an ancient tank adjacent to it into which the spring water was allowed to flow and people bathed in it. It looked large and deep and pretty dangerous to me but father jumped in with me at once—he would teach me to swim then and there to my consternation! Forty years later when I had to visit Utkal University, I would insist on being taken to the spot. It had not changed a bit and I could recognise every detail of it, including the gargoyle spout through which the spring water was flowing into the tank—except that, funnily, it was a very small tank—I did not think the water was more than four feet at its deepest!

I suspect that father found it comparatively easier than most people to switch lives, and move from one cultural mode to another. He loved the great outdoors. He was certainly one of India's most brilliant field archaeologists as Stuart Piggot had remarked. But after each of his periodic excursions mostly to the world of nature (because many of the prehistoric sites in India had been abandoned by man in recent times), he would come back quietly to the sedate social existence of the middle-class babu Calcutta of the late thirties and fit in snugly, as if he had never been away. The switch would be so complete that I do not remember him ever to have spent a minute on such a normal outdoor activity as taking a walk in the Maidan—dear to the Calcuttans of the time—not to speak of the more vigorous outdoor sports that many of his friends loved to indulge in. In Calcutta society he played the part of a highly cultivated Bengalee Brahmin gentleman keeping himself glued to his study the year round. He had quite a full life in this incarnation too as some of his closest friends would remark half-teasingly to my hearing. As Curator of the Indian Museum he would be busy reorganising the Gandhara collection, writing his definitive guide to the Museum's sculptures; as the youngest Fellow of the Royal Asiatic Society of Bengal he would be very much a committee man; he would be meticulously translating, editing and annotating the Sanchi inscriptions for the monumental Marshall and Foucher volumes (that eventually were to come out only after his death); occasionally, as mother told me later, he would also worry about not pursuing his old love, the epigraphy of eastern India and bemoan the fate of *Inscriptions of Bengal*, Volumes I and II which nobody produced, father having done only Volume III in his early youth. And I can still recall father happily spending his spare hours at home in his study as well as his bedroom, reading blackened prints on coarse paper taken off ancient inscriptions (on copper plates, I suppose), through a handy mirror that he always carried around. He clearly loved this life too.

I, nevertheless, suspect (as did my mother) that my father was not completely happy with the life style of the scholarly Bengalee Bhadralok which he could bear only up to a point. Come every autumn we would see indications of this as he would betray a strange restlessness that mother would openly comment on and I would secretly notice. He would wait impatiently for word from Delhi hoping against hopes that Government would relax the austerity of the post-depression years and let him fit out an expedition to the Indus Valley again. Almost each year the news would come that the resumption of the explorations in Sind was postponed by yet another season. He would be so disappointed that mother would not have the heart to show even a bit of her elation.

In the midst of all this, I remember there was talk (in 1938) of his going to England on study leave. He began to look forward to it as did the old protagonist of his cause, John Marshall, who had once inducted him into the Archaeological Survey. But as Kashinath Narayan Dikshit, the Director General of the Survey, was to tell mother in my presence later, as he openly wept, it was he who had scotched that move. He had known that Government had finally relented, the Sind explorations were on and, father was going to be asked to lead the expedition as Officer on special duty. Naturally father had known this too or anticipated this, and had probably decided to pretend his great disappointment to mother when the study leave was not granted. Mr. Dikshit blamed himself (quite unnecessarily), for he thought that father would have been spared only if he had been granted that leave first. I on my part hold a different view. I think probably father would not have taken the boat to England given half a chance to be back in Sind again! But of this we will never know.

2

My last days with N.G. Majumdar

Krishna Deva

9th November, 1938. Time 4.30 P.M. Place: Excavation Camp of N.G. Majumdar in the fastness of hills along the Gaj Nai hill-stream

After finishing the day's exciting excavation at the Rohel-jo-kund site just across the hill-stream and taking a refreshing cup of tea, I sat down beside a small folding table opposite N.G. Majumdar to register the day's smaller finds kept in two baskets. While Majumdar faced the open vista of the river-side I faced his Swiss Tent pitched beneath the long, not-too-high escarpment. As I was making entry in the Register and putting a corresponding serial number on each find, Majumdar suddenly asked me to look back and enquired if I could say who the men moving yonder could be. I looked back and found 11 tall Baluchis with guns on the shoulder marching in a file along the bank of the stream. When I expressed my ignorance, Majumdar spoke out that they must be armed retainers of some local *Wadera* (rich Sindi Zamindar). While we continued our registration work, the marching men moved on and slowly disappeared behind the thick casuarina bushes, growing along the bank of the stream.

11th November, 1938. Time 7 A.M. Same place

As we were to move our camp, we (myself along with Mani Sen Gupta, Photographer, and Arabindo Chatterji, Draftsman) got up early, finished our packing and sat down for breakfast in a single-fly office tent with two door-openings, one on the river-side and the other on the opposite side. We heard Majumdar's loud voice 'Sadardin, just see if the Babus are ready,' followed by three reports of gun-fire which reverberated in the hills around. As we talked among ourselves whether it could be someone hunting birds at this early hour, Arabindo Chatterji crept out of the river-side door of the tent to ascertain the source of the gun-fire; there were two quick reports of gun-fire followed by re-entry into the tent of Chatterji who fell down bleeding in an unconscious state. It was only then that we realized that we were being shot at. As I took out some brandy from the camp medical kit and offered it to Chatterji to revive him, Mani Sen Gupta wrapped himself in a blanket and crept out of the tent to find out the direction from which we were being fired, there was an instantaneous shot and Sen Gupta lost his propped-up index finger of the right hand and returned to the tent bleeding. Not to lag behind my two elder companions, I then approached the other door-opening of the tent and was immediately greeted by a bullet grazing my right thigh and making a 2-inches long incision. Minutes later we heard the following dialogue, while we were still inside our tent:

Sadardin—Khan Saheb, please do not shoot.

Voice —Musalmans to keep out. We will not shoot Musalmans.

Sadardin—We all are Musalmans.

Voice —Take them out of the tent first.

Being the least injured I was the first to come out of the tent and felt aghast to see 11 gun-barrels posted on the overhead escarpment and pointed towards us and only one visible head which was holding the dialogue in broken Urdu. This head belonged to the khaki-clad Sardar of the bandits who also had binoculars besides a gun. As soon as I came out, the Sardar challenged me:

Sardar —Are you a Hindu, or a Musalman?

Myself—Musalman.

Sardar —What is your name?

Myself—Mohammad Ismail Chowdhury (He was the Curator then of the Mohenjo-daro Museum, whom we had met 3 weeks earlier).

Sardar (shouting loudly)—What is your name?

Myself—Mohammad Ismail Chowdhury (My other two tent-mates also came out by then).

Sardar —Are these other two Hindus or Musalmans?

Myself—They too are Musalmans.

Sardar —What are their names?

Myself—One is Nazir, the other is Bashir.

Sardar —Recite the Kalma.

(Sadardin recited loudly and I joined him,—

'La Ilah al'Allah Mohammade Rasul al'Allah').

Shortly thereafter 10 dacoits climbed down, only their Sardar remained up, viewing all the while through his binoculars. As soon as they approached us they asked for our guns of which we had none. The next thing that they demanded was 'Khazane'. We handed over the Government cash of Rs. 2,000 in currency notes that we had. Then they asked for the 'Khazane' that we had dug. We replied that pottery was the only thing that we had dug and showed it to them. They asked us to open our trunks/suitcases and took away the keys. They also asked for our shoes and all leather goods including the camera and camera-stand cases. They then went to our camel-men and took away the four riding camels. Lastly, they loaded all our packed beddings and trunks etc. on the camels and after securing them with the ropes of our tents, they marched with the booty towards Kalat (Baluchistan), led by their Sardar who was the last to climb down.

I was the first to approach Majumdar even while the dacoits were loading the baggages, but life had already departed from his bullet-ridden body.

After the dacoits had left, all members of the camp including our camel-men were terror-stricken and cried and wailed. Though shocked, Sadardin and I kept our cool and used all our persuasion to make our camel-men agree to take the body of Majumdar and the badly-wounded Chatterji and other staff members to the Gaj Nai Canal Bungalow, at a distance of just 5 miles, from where we could contact the District officials.

As we left the camp, the camel-men told us that the dacoits had visited them on the evening of 9th November and made detailed enquiry about us and our activities and were told that we were Government officers of Hindu community from Bengal and were engaged in digging treasures (Khazane). It is these loose talks of our camel-men which tempted the dacoits to raid our camp, particularly since their attempt at robbing some rich Hindu merchants in the interior was met with stiff resistance and the Sind Police was hotly pursuing them.

Hardly had we proceeded a mile or so from the accident site towards the Gaj Nai Bungalow that we came across an armed force of the Sind Police led by a British Superintendent of Police, all on camelback, crossing our way in hot pursuit of the bandits. We narrated the tragic incident to the S.P. who advised us to proceed post-haste to the Gaj Nai Bungalow and contact on telephone the Collector and the Civil Surgeon, Dadu.

We followed the advice of the S.P. and waited at the Bungalow where a Deputy Magistrate and an Assistant Civil Surgeon shortly met us and gave us first-aid and took us to Dadu Civil Hospital for further treatment of the injured. The Collector of Dadu met us at the Civil Hospital and after collecting details of the tragic happenings communicated with the proper Provincial and Central Government authorities including the Director General of Archaeology and awaited their instructions. After contacting the family of Majumdar, the DGA advised the Collector to arrange for the cremation of Majumdar's body at Dadu with proper Hindu rites which was actually done on the afternoon of 12th November, 1938. Arabindo Chatterji's badly-wounded right arm had to be amputated in the presence of his father-in-law, a Railway Medical Officer, on 13th November and we all left Dadu on 14th November together with H.L. Srivastava, Superintendent, Archaeological Survey of India, Lahore, who came to escort us to Delhi.

3

N.G. Majumdar as a man and archaeologist

Krishna Deva

I received my initiation in archaeology at the feet of N.G. Majumdar in 1937. As a fresher from the University having just done my M.A. in Ancient Indian History and Culture, I had only read about excavations and seen so-called 'excavated antiquities' in the museums without realizing the complex processes and activities involved in the field and the museum. It was quite a thrilling experience to see actual excavation in progress which was being conducted by Majumdar at Kausambi and which I had the good fortune to join as a raw understudy. How excited I felt to see ancient structural remains being exposed around the standing Aśokan pillar at the site and terracotta figurines, pottery, beads and coins etc. being exhumed from the bowels of the earth, constituting concrete source material for reconstructing the past history I had only read about.

I found Majumdar as an ideal and kind teacher, patiently guiding me in the practical lessons of topographical survey of a site followed by technique of field excavation, involving methods of trenching, observation of soil strata, careful clearance of structural remains and proper documentation of the excavated finds. After gaining some experience I was entrusted with recording of smaller finds or was asked to supervise a trench.

Since I was working as an unpaid student volunteer, Majumdar took personal care for my well-being much like an ancient *Guru* in a *Gurukula*. Sometimes he used to send for me in the evenings and discussed some problems of history or archaeology or narrated his experiences of excavations at Mohenjo-daro or explorations in Sind.

While the excavations were in progress, a large stone slab bearing an early inscription was unearthed in course of cultivation in a portion of the Kausambi site and brought to the excavation camp. I had no difficulty in deciphering the inscription which was a donatory record of Mahārāja Bhadramagha dated year 81. Majumdar felt happy with my epigraphical performance and encouraged me to edit the inscription for the *Epigraphia Indica*, which was my first article to be published in a research journal.

In September 1938 two posts of scholars were created in the Archaeological Survey of India (A.S.I) for which I was selected along with Fazal Ahmad Khan, who later became the first Director of Archaeology in Pakistan. While Khan was attached to the Headquarters Office, I was asked to prepare myself to accompany N.G. Majumdar on his new explorations in Sind which were to commence in the following month. I felt happy to get an opportunity to work again under Majumdar and enthusiastically read all the published reports on excavations at Mohenjo-daro and other Sind sites together with Majumdar's Memoir on *Explorations in Sind.*

We may now briefly review the significance of Majumdar's archaeological explorations in Sind.

The period from 1927 to 1931 was one of considerable achievements for the A.S.I. While excavations were at their peak at the twin city sites of Mohenjo-daro and Harappa, exploratory surveys were being pursued with great forethought and zeal in Baluchistan by Aurel Stein and in Sind itself by K.N. Dikshit and N.G. Majumdar. Following the excavation of Nal in Baluchistan by Hargreaves in 1925-26, Aurel Stein made a rapid survey of northern and southern Baluchistan between 1927 and 1928 and discovered more than 120 protohistoric sites with links to Mohenjo-daro and Harappa on the one hand and with Nal on the other. Majumdar, who had conducted an excavation at Jhukar on the Indus in 1927-28, continued his explorations in the Indus Valley and in the hill tracts of Johi, Sehwan and Kohistan in Sind between 1929 and 1931. He succeeded in discovering some 62 sites, of which half the number were protohistoric or Chalcolithic in age.

The publication of the results of these operations by Majumdar in his monograph *Explorations in Sind* (1934) added new dimensions to Indian archaeology. This monograph is a model of exploratory report writing which probes and assesses the archaeological character and potential of each site against the background of regional topography and ecology, history and tradition, natural resources and mechanics of trade/communication through the ages. One outstanding contribution made by this work was the discovery of the type site at Amri where Period I, with its distinctive pale Bichrome Ware, was confined to the lower strata and was clearly Pre-Harappan. Period II, with its typical sturdy ware including black-on-red painted pottery belonging to the Harappan culture, came from the upper horizon. The Pre-Harappan layers were demarcated from the Harappan by a substantial deposit of dark cultural soil.

He also explored two burial sites at Bandhni and Damb Buthi, and two fortified sites, namely Kohtras and Ali Murad, belonging respectively to the Amri and Harappan cultures. He also identified quite a number of flint-knapping stations, which formed handy sources for the supply of the flint and chert tools. Majumdar thus presented as comprehensive a picture of Chalcolithic Sind as was possible with the evidence he collected and interpreted, certainly with keen observation and a highly analytical mind. He realised the far-reaching implications of his discovery of Amri and its bearing on the wider question of the relationship between the Chalcolithic cultures of Iran, Seistan, Baluchistan and the Indus Valley. To quote Majumdar:[1]

> 'The sequence of the two classes of Sind pottery is a matter of great importance, as with it is indirectly linked up the question of the dating of the Nal culture which

> appears to have been essentially different from that of Mohenjo-daro, that is to say, from Indus. The ceramic remains of Nal, Nundara and kindred sites in Baluchistan, which show a "geometric" style, form a distinct group by themselves, related more or less to the pale wares of Sistan and of areas farther afield. On the other hand, fabrics of a typical black-on-red class, representing a mixture of geometric, zoomorphic and plant forms, from sites in Northern Baluchistan like Dabarkot, form another group intruding into this zone of pale pottery. This group can be affiliated directly to the cultural zone of Indus. Likewise, the pale wares of Sind, which bear a family likeness to the potteries of Kulli and Mehi, and also to some extent to those of Nal and Nundara, in Baluchistan, must be reckoned as an intrusive element in the Indus Valley.'

Majumdar resumed his explorations in Sind, after a lapse of nearly seven years, in 1938 and surveyed the foothills of the Kirthar Range and the adjoining highlands and plains. That he exercised great forethought in planning his survey is indicated by the fact that he discovered in the short space of three weeks some half-a-dozen Chalcolithic sites including the site of Rohel-jo-kund[2] where he was killed by bandits.

Rohel-jo-kund is unique among the Sind sites as a settlement predominantly of the Nal culture with some Amri contacts. This is not surprising in view of the fact that the site is situated on the bank of the Gaj Nai, a perennial hill-stream along which people travelled in antiquity, as now, between Baluchistan and Sind. Three neighbouring sites surveyed by him also yielded Nal designs mixed with Amrian pottery. These clearly show that Majumdar was, during the last days of his life, on the trail of important discoveries which could have solved the problems of the relationships between the Chalcolithic cultures of Sind and Baluchistan.

Majumdar's contributions to historic archaeology including epigraphy, numismatics, iconography, art history and museology were no less significant.

Starting with the *Inscriptions of Bengal*, III (Calcutta, 1929) containing epigraphs of the Senas and contemporary dynasties of Bengal, which he edited during his professional assignment as Curator of the Rajashahi Museum from 1924 to 1926, his epigraphical *magnum opus* was his work on the inscriptions of the Sanchi monuments,[3] published after his death in 1940. He also edited half-a-dozen highly significant Kharoshṭī inscriptions from the north-west and about a dozen epigraphs from eastern India, dating from the Gupta to the early medieval times. He also discovered and wrote on the early architectural landmarks of Gokul in Bengal and Lauriya-Nandangarh[4] in north Bihar, the latter anticipating on plan the famous *stūpa*-shrines at Paharpur in north Bengal and Borobodur in Java. His two Guide-books to the collections of Early Indian Sculptures and the Gandhara Art (Calcutta, 1937) in the Indian Museum, Calcutta, are valuable contributions to the art history and early Indian iconography, as are his notes on the new acquisitions to the same museum which adorn the pages of the old *Annual Reports* of the A.S.I. from 1930 to 1937.

A brilliant product of Calcutta University, Majumdar combined a remarkable flair for historical research with a genius for field excavation and exploration particularly of the Chalcolithic and protohistoric cultures of India. He was trained in field archaeology by Sir John Marshall and appointed as Assistant Superintendent of the A.S.I. in 1927 and elevated as Superintendent, A.S.I. in 1931. For his erudition in Oriental learning and his distinguished contribution to Indian archaeology he was elected a Fellow—then the youngest—of the Asiatic Society of Bengal in 1936.

A soft-spoken man of few words and very simple and frugal in habits, Majumdar devoted most of his time to reading and writing. He was a strict disciplinarian, a good administrator and a shrewd judge of men. Endowed with high calibre and firm determination, he believed in meticulous planning and conducted his official activities according to a well thought-out plan. This is the secret of his remarkable achievement as an archaeologist in such a short span of life. He had few friends and when in a reminiscent mood he talked to me endearingly of Prof. P.C. Bagchi, a famous Sinologist and his batchmate, and of two other Indian scholars, *viz.* Prof. D.R. Bhandarkar, his *Guru* and Rao Bahadur K.N. Dikshit, then Director General of Archaeology, for whom he had the highest admiration and regard. When Majumdar's ashes were brought to Delhi after his cremation at Dadu (Sind), Rao Bahadur Dikshit literally broke down and sobbed saying, 'I have lost a precious friend and colleague!' which reveals the depth of friendly bond between the two distinguished archaeologists. Had he lived a normal lease of life, he would not only have risen to the highest eminence as an archaeologist and historian but the course of the Archaeological Survey of India also might possibly have taken a diferent turn from what it actually did.

I salute with all humility and reverence to the memory of the great savant and my *Guru*.

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4

Settlement in the Lake Manchar Area of Sind: N.G. Majumdar's Contribution to the study of Harappan Settlement Patterns

Gregory L. Possehl

Introduction

N.G. Majumdar was the first man to conduct a systematic archaeological survey in South Asia. This took place in Sind during the field seasons 1927-28, 1929-30 and 1930-31 (Majumdar 1934). An additional season of work was initiated in 1938-39 but this ended on November 11 when Majumdar was shot and killed by dacoits near the mouth of the Gaj Nai. There is an interesting, sincere, quality to Majumdar's work, and while he is known for much more, his explorations in Sind are a historical landmark for the beginnings of settlement archaeology in the protohistory of the subcontinent.

Fig. 1

Between 1925 and 1927 this brilliant young Bengali scholar from the Varendra Research Society's Museum in Rajshahi (Fig. 1, Sketch of N.G. Majumdar) participated in the Mohenjo-daro excavations. His talent and intellect brought him to the attention of Sir John Marshall, Daya Ram Sahni and E.J.H. Mackay, all of whom supported his appointment to the Archaeological Survey of India as an Assistant Superintendent.

On 2 January 1928 Mackay gave him the opportunity to conduct an independent excavation. This would be a trial work at the site of Jhukar, 25 km. north of Mohenjo-daro (Majumdar 1927-28, pp. 76-83; 1934, pp. 5-18). Jhukar was first visited by R.D. Banerji in 1918-19 (Banerji 1918-19, p. 58) who thought it was a Buddhist *stūpa*. Majumdar's initial excavation of Mound B at the site brought to light a settlement of Kushāṇa age, just like the material from the Stūpa Area on the Mound of the Great Bath at Mohenjo-daro. The pottery is very much like that of modern Sind, and not so different from some protohistoric wares. His excavations at Jhukar were the first to make this point.

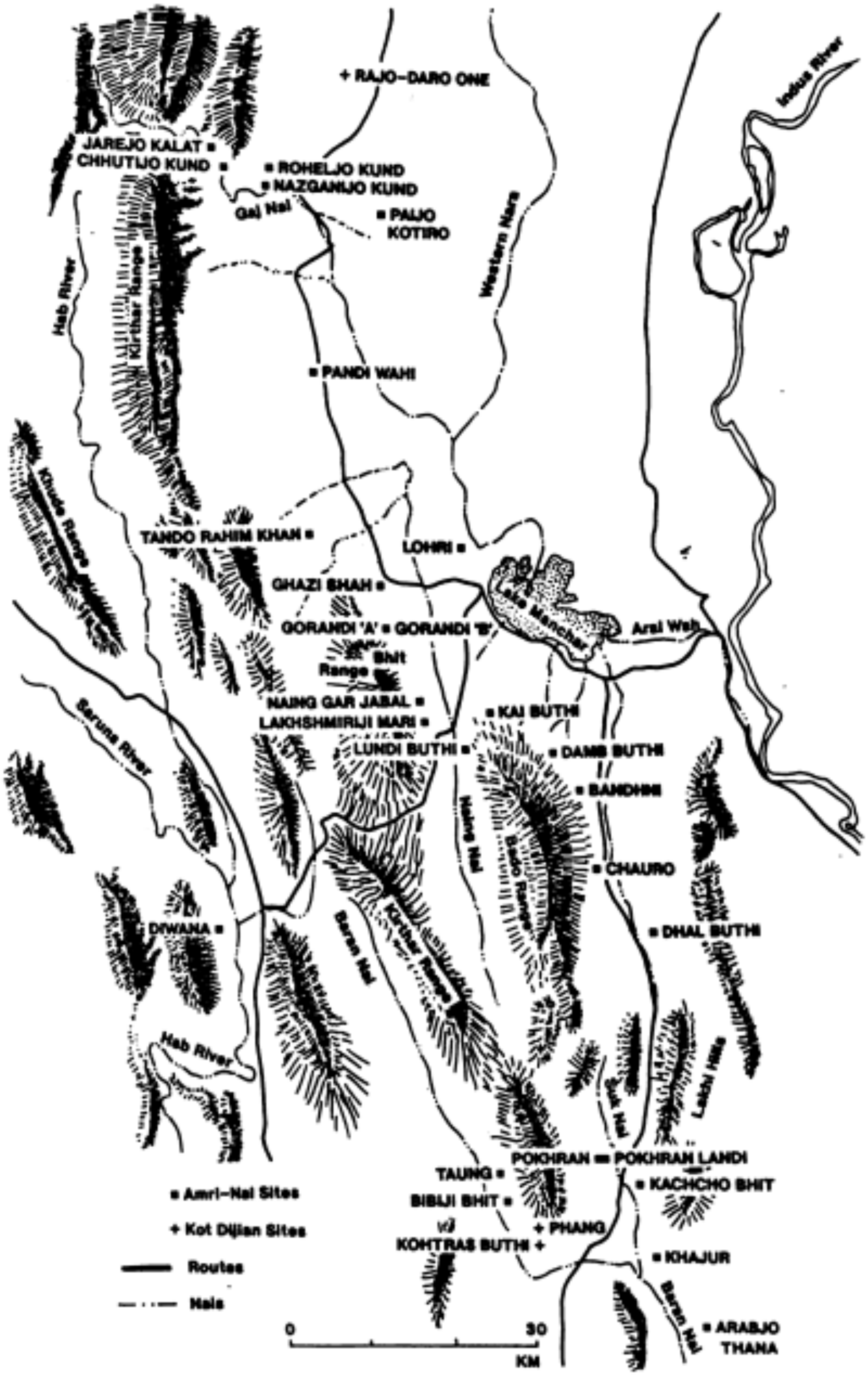

Fig. 2. Early Harappan sites near Lake Manchar and the Gaj Nai

He expended a great deal of time on Mound B, five or six weeks, and just as he was about to wind things down at the site, he decided to have a look at Mound A. Here he found the same Kushāṇa material, but below this were two strata with buildings made of baked brick just as at Mohenjo-daro. He christened these "Early and Late Jhukar". We now know that the "Early Jhukar" is a settlement of the Urban Phase Harappan. His "Late Jhukar" is now called simply "Jhukar" and is the Sindi Post-urban Phase Harappan. Distinguishing the two is done almost exclusively on the style of the painted pottery and the entire matter is in need of a full review. But, in his first try Majumdar established an important chronological distinction and has given us the first indication of the cultural materials that followed the Mature, Urban Phase Harappan in Sind.

Majumdar was a hard-working, intelligent man, who was obviously headed for a very fine career. His contributions to epigraphy and historical researches were undertaken, while he was also involved in the Sind explorations. He also made a significant contribution to the history of archaeological research (Majumdar, 1939).

Explorations in Sind

In 1929-30 and 1930-31 Majumdar returned to Sind to continue his explorations and small-scale excavations. He discovered many sites and those that he first investigated with the spade make a list of very distinguished Indus settlements, some of which are Chanhu-daro, Amri, Ghazi Shah, Lohumjo-daro, Ali Murad and Pandi Wahi. (Figs. 2 and 3, Sketch map of some of N. G. Majumdar's excavated sites of the Early and Mature Harappan Periods). At Amri, during Christmas 1929, he also established the chronological relationship between the Pre-urban Phase, Amrian material and the Urban Phase Harappan, setting the stage for the debate on the origins of Indus urbanization. Majumdar's monograph on this work, *Explorations in Sind* (1934), remains one of the seminal contributions to the archaeology of the subcontinent.

Majumdar's research in Sind was resumed on 17 October 1938, six and one-half years after completing his initial survey, when he left Delhi for Johi, a tahsil headquarters in District Dadu, 90 km. south-west of Mohenjo-daro. He first moved to the Gaj Nai Canal Bungalow and then, on November 7th, to a tent camp just off the Gaj Nai itself (a *nai* is a hill torrent in Sindi). During his time in the field Majumdar discovered six new protohistoric sites, including Roheljo-kund, a settlement of the Amri/Nal Complex, which just precedes the Mature Harappan in Sind and Baluchistan (Krishna Deva and McCown 1949).

November 1938 was an important month in the history of the Archaeological Survey of India. Majumdar resumed his field work in Sind and Sir Leonard Woolley arrived in India to conduct an administrative and academic review of the Archaeological Survey of India. Woolley came with his wife Katharine on 6 November 1938 and stayed

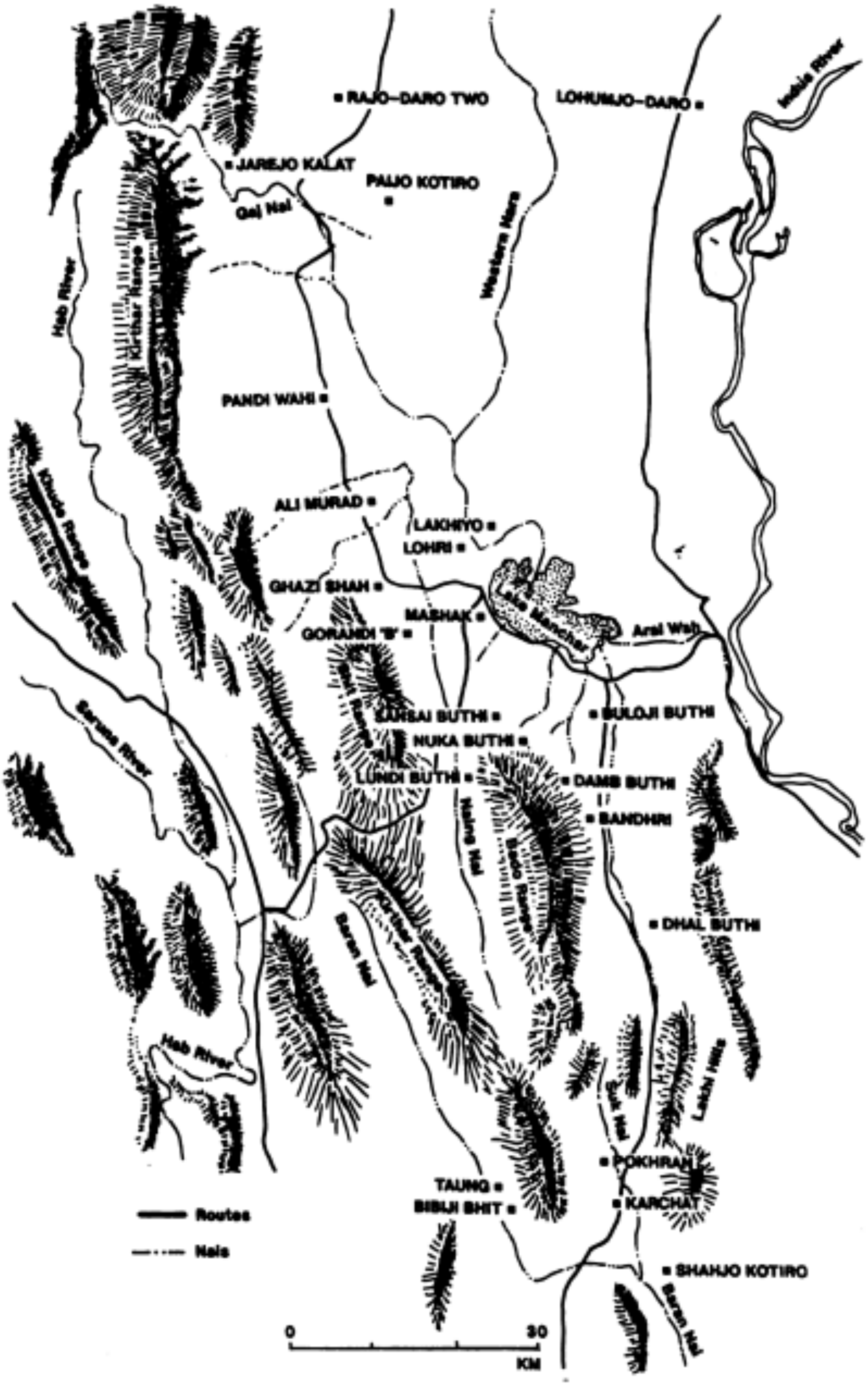

Fig. 3. Mature Harappan sites near Lake Manchar and the Gaj Nai

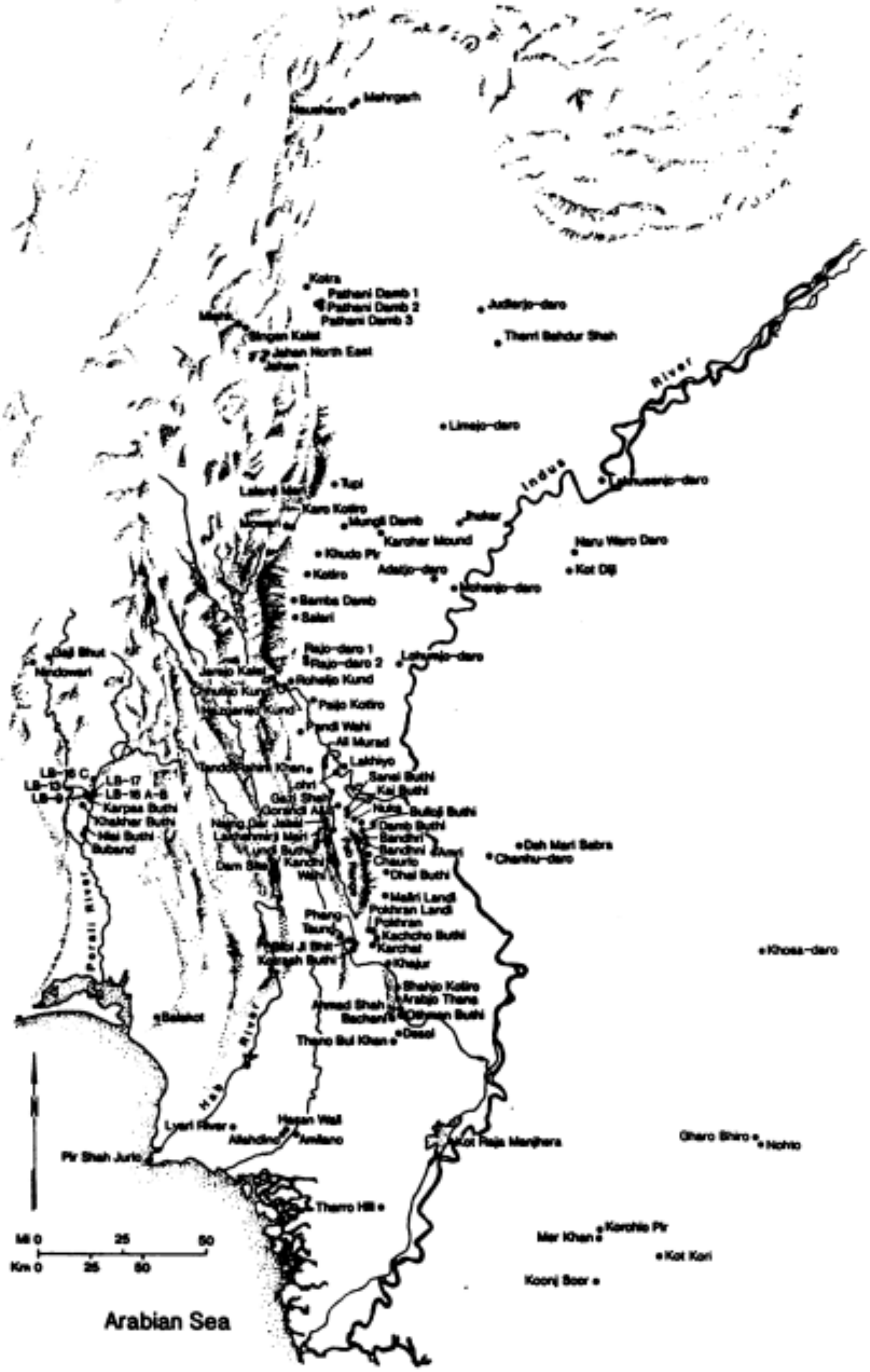

Fig. 4. Protohistoric sites in Sind

for three months. The resulting report (Woolley 1939) caused something of a sensation (Possehl, in press).

Settlement Patterns in the Lake Manchar Area

Krishna Deva (1982) has a review of Majumdar's field methods, which were intuitively quite sound, even ahead of his time. While shortcomings are there, it is a credit to Majumdar's sound, systematic approach to exploration, and publication that his data are still useful today. He was thorough in his description of sites and the excavated finds, including attention to the relative frequency of pottery types and the size of mounds.

Two maps (Figs. 2 and 3) have been prepared which present Majumdar's findings from the Baran Nai in the south to the Gaj Nai in the north. This is an area with several different landscapes, but historically it does seem to form something of a natural unit, despite geographical and ecological diversity. A few sites not visited by Majumdar are included on these maps for completeness. Additional information on them is available on Tables 1 and 2.

A number of interesting points can be made concerning the settlement patterns in this region. The first of these is evidence even on the relatively large-scale maps shown as Figs. 2 and 3. That is, during the Early Harappan Period, which involves Amri-Nal and Kot Dijian sites in this region, there is a distinct tendency for the sites to cluster along the mountain piedmont of western Sind. This is even more apparent in the smaller scale map, on which all (or nearly all) of the known protohistoric sites of the region, from both the Mature and Early Harappan Periods, are plotted (Fig. 4).

The active and meander flood plains of the Indus river have been avoided in both periods. It is important to note that the word "avoided", not "ignored", was used. There are perfectly good Mature Harappan sites in this environment, and there may be more, buried or removed by erosion. Clarifying this proposition presents a research priority of some importance to those who are still active in explorations in this region today.

A second point can be made with reference to the data presented on Tables 1 and 2. Note that there are actually more Early Harappan sites (29) than those of the Mature Harappan Period (23). While there is an increase in the average size of sites, from 2·23 to 2·72 hectares, this is not very substantial. Thus, in this portion of the Sind Kohistan, Kirthar Piedmont, there is essentially no growth in the number or size of settlements associated with the advent of the Harappan Civilization. This is not the case in other regions; Gujarat for example (Possehl 1980), or the Hakra Valley (Mughal 1982) and it too deserves some attention as to the causes for such marked settlement stability.

Summary

N.G. Majumdar was one of the great archaeologists to have been a part of the early history of research on the Indus Civilization. His excavations at Jhukar, Amri, Chanhu-daro and many other places were seminal contributions to the understanding of the culture history of early Sind. His explorations revealed the presence of many protohistoric sites and the manner in which he recorded and published them has left a permanent record which can still be used today to assist us in furthering our understanding of the history of the lower Indus Valley.

Table 1

Early Harappan sites in the Lake Manchar Area

SITE	DISTRICT	COORDINATES	BIB	PERIODS	SIZE
ARABJO THANA	KARACHI	25° 38' 00" N. 67° 50' 00" E.	Majumdar 1934: 136-37 Flam 1981: 342-43	AMRI-NAL	0·80
BANDHNI	DADU	26° 12' 00" N. 67° 42' 00" E.	Majumdar 1934: 120-22 Flam 1981: 301	AMRI-NAL	7·60
CHAURO	DADU	26° 09' 00" N. 67° 43' 00" E.	Majumdar 1934: 123-25 Flam 1981: 305	AMRI-NAL	1·40
CHHUTIJO KUND	DADU	26° 52' 00" N. 67° 15' 00" E.	Krishna Deva and McCown 1949: 27 Flam 1981: 261	AMRI-NAL	
DAMB BUTHI	DADU	26° 17' 00" N. 67° 40' 00" E.	Majumdar 1934: 114-17 Flam 1981: 298-301	SINDHI HARAPPAN AMRI-NAL	9·60
DHAL BUTHI	DADU	26° 04' 00" N. 67° 47' 00" E.	Majumdar 1934: 125-27 Flam 1981: 308	SINDHI HARAPPAN AMRI-NAL	1·50
DIWANA	LAS BELA	26° 06' 00" N. 67° 15' 00" E.	Fairservis 1961: 6	AMRI-NAL	
GHAZI SHAH	DADU	26° 27' 00" N. 67° 28' 00" E.	Majumdar 1934: 79-86 Flam 1981: 281	SINDHI HARAPPAN TRANSITIONAL AMIR-NAL	2·10
GORANDI 'A'	DADU	26° 24' 00" N. 67° 29' 00" E.	Majumdar 1934: 87-91 Flam 1981: 282-83	AMRI-NAL	0·60
GORANDI 'B'	DADU	26° 24' 00" N. 67° 29' 00" E.	Majumdar 1934: 87-91 Flam 1981: 284	SINDHI HARAPPAN AMRI-NAL	
JAREJO KALAT	DADU	26° 54' 00" N. 67° 14' 00" E.	Krishna Deva and McCown 1949: 27-8 Flam 1981: 260	SINDHI HARAPPAN AMRI-NAL	0·10
KACHCHO BUTHI	DADU	25° 47' 00" N. 67° 46' 00" E.	Majumdar 1934: 129 Flam 1981: 322	AMRI-NAL ?	

Table 1—*Contd.*

SITE	DISTRICT	COORDINATES	BIB	PERIODS	SIZE
KAI BUTHI	DADU	26° 20' 00" N. 67° 36' 00" E.	Lambrick 1944: 67-8 Flam 1981: 292	AMRI-NAL	1·30
KHAJUR	DADU	25° 42' 00" N. 67° 47' 00" E.	Majumdar 1934: 134-35 Flam 1981: 338-39	AMRI-NAL	1·20
KOHTRAS BUTHI	KARACHI	25° 42' 00" N. 67° 38' 00" E.	Majumdar 1934: 132-34 Flam 1981: 331-33	KOT DIJIAN	10·20
LAKHSHMIRJI MARI	DADU	26° 17' 00" N. 67° 31' 00" E.	Majumdar 1934: 88 Flam 1981: 285-86	AMRI-NAL	
LOHRI	DADU	26° 30' 00" N. 67° 32' 00" E.	Majumdar 1934: 65-7 Flam 1981: 232	SINDHI HARAPPAN TRANSITIONAL AMRI-NAL	
LUNDI BUTHI	DADU	26° 17' 00" N. 67° 30' 30" E.	Lambrick 1944: 64-5 Flam 1981: 289	SINDHI HARAPPAN AMRI-NAL	
NAING GAR JABAL	DADU	26° 18' 00" N. 67° 31' 00" E.	Lambrick 1944: 64 Flam 1981: 287	AMRI-NAL	
NAZGANIJO KUND	DADU	26° 52' 00" N. 67° 17' 00" E.	Krishna Deva and McCown 1949: 28-9 Flam 1981: 262	AMRI-NAL	0·30
PAIJO KOTIRO	DADU	26° 50' 00" N. 67° 28' 00" E.	Krishna Deva and McCown 1949: 14-6 Flam 1981: 267	SINDHI HARAPPAN AMRI-NAL	
PANDI WAHI	DADU	26° 40' 00" N. 67° 22' 00" E.	Majumdar 1934: 91-5 Flam 1981: 270-71	SINDHI HARAPPAN AMRI-NAL	1·50
PHANG	KARACHI	25° 42' 00" N. 67° 38' 00" E.	Majumdar 1934: 13-34 Flam 1981: 334-35	KOT DIJIAN	0·40
POKHRAN	KARACHI	25° 49' 00" N. 67° 44' 00" E.	Majumdar 1934: 128-29 Flam 1981: 321	AMRI-NAL	0·80
POKHRAN LANDI	KARACHI	25° 49' 10" N. 67° 44' 00" E.	Majumdar 1934: 127-29 Flam 1981: 319	SINDHI HARAPPAN AMRI-NAL	
RAJO-DARO ONE	DADU	26° 58' 00" N. 67° 23' 00" E.	Krishna Deva and McCown 1949: 14-6, 25 Flam 1981: 265-66	KOT DIJIAN	0·70

Table 1—*Contd.*

SITE	DISTRICT	COORDINATES	BIB	PERIODS	SIZE
ROHELJO KUND	DADU	26° 53' 00" N. 67° 18' 00" E.	Krishna Deva and McCown 1949: 16-25 Flam 1981: 263	AMRI-NAL	1·00
TANDO RAHIM KHAN	DADU	26° 30' 00" N. 67° 33' 00" E.	Majumdar 1934: 86 Flam 1981: 272-73	TRANSITIONAL AMRI-NAL	0·75
TAUNG	DADU	25° 46' 00" N. 67° 34' 00" E.	Lambrick 1944: 61-2 Flam 1981: 327-29	HISTORICAL JHANGAR SINDHI HARAPPAN AMRI-NAL	0·50
Total:					42·35
Average:					2·23
Count: 29					

Table 2

Mature, Sindi Harappan sites in the Lake Manchar Area

SITE	DISTRICT	COORDINATES	BIB	PERIODS	SIZE
ALI MURAD	DADU	26° 32' 00" N. 67° 27' 00" E.	Majumdar 1934: 89-91 Flam 1981: 274-75	SINDHI HARAPPAN	10·20
BANDHRI	DADU	26° 13' 00" N. 67° 42' 00" E.	Majumdar 1934: 120-22 Flam 1981: 302	SINDHI HARAPPAN	0·60
BIBIJI BHIT	DADU	25° 44' 00" N. 67° 36' 00" E.	Lambrick 1941: 99 Flam 1981: 330	SINDHI HARAPPAN AMRI-NAL	0·40
BULLOJI BUTHI	DADU	26° 16' 00" N. 67° 42' 00" E.	Nissen 1983: 8	SINDHI HARAPPAN	2·00
DAMB BUTHI	DADU	26° 17' 00" N. 67° 40' 00" E.	Majumdar 1934: 114-17 Flam 1981: 298-301	SINDHI HARAPPAN AMRI-NAL	9·60
DHAL BUTHI	DADU	26° 04' 00" N. 67° 47' 00" E.	Majumdar 1934: 125-27 Flam 1981: 308	SINDHI HARAPPAN AMRI-NAL	1·50
GHAZI SHAH	DADU	26° 27' 00" N. 67° 28' 00" E.	Majumdar 1934: 79-86 Flam 1981: 281	SINDHI HARAPPAN TRANSITIONAL AMRI-NAL	2·10
GORANDI 'B'	DADU	26° 24' 00" N. 67° 29' 00" E.	Majumdar 1934: 87-91 Flam 1981: 284	SINDHI HARAPPAN AMRI-NAL	

Table 2—*Contd.*

SITE	DISTRICT	COORDINATES	BIB	PERIODS	SIZE
JAREJO KALAT	DADU	26° 54' 00" N. 67° 14' 00" E.	Krishna Deva and McCown 1949: 27-8 Flam 1981: 260	SINDHI HARAPPAN AMRI-NAL	0·10
KARCHAT	DADU	25° 45' 00" N. 67° 44' 00" E.	Majumdar 1934: 129-31 Flam 1981: 323-24	SINDHI HARAPPAN	4·70
LAKHIYO	DADU	26° 31' 00" N. 67° 35' 00" E.	Majumdar 1934: 67-8 Flam 1981: 231	SINDHI HARAPPAN	
LOHRI	DADU	26° 30' 00" N. 67° 32' 00" E.	Majumdar 1934: 65-7 Flam 1981: 232	SINDHI HARAPPAN TRANSITIONAL AMRI-NAL	
LOHUMJO-DARO	LARKANA	26° 58' 00" N. 67° 51' 00" E.	Majumdar 1934: 48-58 Flam 1981: 233	JHUKAR SINDHI HARAPPAN	5·00
LUNDI BUTHI	DADU	26° 17' 00" N. 67° 30' 30" E.	Flam 1981: 289 Lambrick 1944: 64-5 Lambrick 1975: 60	SINDHI HARAPPAN AMRI-NAL	
MASHAK	DADU	26° 26' 00" N. 67° 35' 00" E.	Majumdar 1934: 63-4 Flam 1981: 237	JHUKAR/TRIHNI SINDHI HARAPPAN	
NUKA BUTHI	DADU	26° 18' 00" N. 67° 37' 00" E.	Flam 1981:293-95 Nissen 1983: 7	SINDHI HARAPPAN	1·70
PAIJO KOTIRO	DADU	26° 50' 00" N. 67° 28' 00" E.	Krishna Deva and McCown 1949: 14-6 Flam 1981: 267	SINDHI HARAPPAN AMRI-NAL	
PANDI WAHI	DADU	26° 40' 00" N. 67° 22' 00" E.	Majumdar 1934: 91-5 Flam 1981: 270-71	SINDHI HARAPPAN AMRI-NAL	1·50
POKHRAN	KARACHI	25° 49' 00" N. 67° 44' 00" E.	Majumdar 1934: 128-29 Flam 1981: 321	AMRI-NAL	0·80
RAJO-DARO TWO	DADU	26° 58' 00" N. 67° 23' 00" E.	Krishan Deva and McCown 1949: 14-6, 25 Flam 1981: 265-66	SINDHI HARAPPAN	0·05
SANASI BUTHI	DADU	26° 19' 00" N. 67° 35' 00" E.	Lambrick 1944: 65 Flam 1981: 290	SINDHI HARAPPAN	
SHAHJO KOTIRO	KARACHI	25° 35' 00" N. 67° 50' 00" E.	Majumdar 1934: 137-39 Flam 1981: 340	KULLI-HARAPPAN	
TAUNG	DADU	25° 46' 00" N. 67° 34' 00" E.	Lambrick 1944: 61-2 Flam 1981: 327-29	HISTORICAL JHANGAR SINDHI HARAPPAN AMRI-NAL	0·50
Total:					40·75
Average:					2·72
Count: **23**					

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5

Some reflections on the formative stage of the Indus Civilization

B. K. Thapar

1. Contribution of N. G. Majumdar

The discovery of the Indus Civilization in 1921-22 was a significant event in the history of Indian archaeology. By extending the cultural history backwards by at least two millennia, it gave India its rightful place along with other countries of the ancient world like Egypt, Mesopotamia, Crete, etc. as a region where civilizing processes were first initiated and successfully achieved. The cultural contribution of this Civilization was thus far from inconsequential. For a proper understanding of the Civilization, both in detail and in general context, it was necessary, however, to find out its distribution. While the excavations at Mohenjo-daro were in progress, Hargreaves (1929) and Aurel Stein (1929 and 1931) conducted surveys during 1925-28 in Kalat and northern and southern parts of Baluchistan which yielded splendid results. For a similar field-work in the Indus Valley proper, the choice fell on young N. G. Majumdar who, since 1925, had worked at Mohenjo-daro under John Marshall and E.J.H. Mackay and as such had sufficient familiarity with the remains of the Indus Civilization. The large-scale excavations at Mohenjo-daro and Harappa had, by then, given us the *form* of the Civilization. Its *dynamism* still eluded us, for little was known of the process of its early growth.

The surveys conducted by Majumdar (1934) during the field seasons of 1929-30 and 1930-31 seem to have two objectives: (a) to locate more sites of the Indus Civilization or other cognate cultures in the valley proper; and (b) to ascertain cultural interrelationship between these sites and those explored/excavated by Hargreaves and Aurel Stein in Baluchistan, particularly Nal, Nundara, Kulli, Mehi, etc. It must be said to the credit of Majumdar that his surveys not only realized these objectives, but brought to light evidence of an antecedent culture at Amri which for the first time indicated a stratified and organic relationship with the Indus Civilization. The importance of this evidence is out of all proportions to the extent of the work done. Reporting on the discovery, Majumdar wrote:

> 'Considering that in Trench I the 'geometric' pottery occupies a lower level than the 'black-on-red', it would be reasonable to assume that the former belongs to an *earlier period*. Moreover, the fundamental difference, both in technique and decoration, between the two wares, would suggest not merely a difference in age

> but also one in culture between the two strata. The later pottery of Amri, on account of its affinities to that of Mohenjo-daro, should be regarded as a typical product of the Indus Civilization. The earlier pot-fabrics of Amri, which will henceforth be called the 'Amri pottery', should be looked upon as representing an earlier phase of the chalcolithic civilization than that represented by Harappa and Mohenjo-daro. The Indus civilization had undoubtedly a long history, and it is therefore possible that the 'Amri' culture, while, co-existent or identical with some of its phases, antedated others.'

Writing about four decades later about the brief but intelligent sondages at Amri, Wheeler (1968) paid tribute to this work by saying 'it was here that in 1929 a skilful investigator (N. G. Majumdar) found the Indus culture clearly stratified above an essentially different ceramic... The latter of these two sentences from Majumdar's report was peculiarly perspicacious.'

Apart from Amri on the Indus, Majumdar subsequently found occurrence of this pottery at Lohri near Lake Manchar and at a number of sites in the hills of western Sind, notably Pandi Wahi, Damb Buthi and Bandhni. Through a comparative study of the then available material Majumdar saw 'the priority of Amri, Kulli, Mehi to Mohenjo-daro on the one hand and to Nal on the other' but found the evidence insufficient to determine the relative chronological position of Nal and Mohenjo-daro. Amri was later, from 1959 to 1961, excavated by Jean-Marie Casal whereby the same sequence was further elaborated (Casal 1964) claiming to be 'introduction to the history of Indus Civilization', thus vindicating Majumdar's findings.

2. Views on Origin and Growth

Ever since the first reports of the discoveries at Mohenjo-daro, various views have been expressed about the origin and subsequent growth into full maturity of the Indus Civilization. Based on the occurrence of some Indus seals or seals with Indus affinities at some Mesopotamian sites, it was initially suggested that the Indus Civilization was an offshoot of the Sumerian Civilization (Waddel 1925). A closer analysis of the Indus and Mesopotamian Civilization would indicate that the basic differences (town-planning, script and weights and measures) bar the possibility of any direct 'colonization' of the former from the latter. At the same time it must be admitted that the dissimilarities are in the basic occurrences themselves such as the attributes of the city itself, widespread trade, well-organised agriculture, fertile river-valleys full of possibilities, specialized craft and ceremonial centres, etc. Considering the nature of the lands in between the two regions—barren mountains with scattered settlements—it is reasonable to argue that any Mesopotamian-generated influence was bound to sink or to become soundly altered before it could reach the Indus plain.

Another view on the origin of the Indus Civilization is that it arose independently in north-western India out of a mosaic of Indo-Iranian borderland and Baluchi village-farming cultures, mostly antedating the Harappan culture and some even contemporary with it. The plethora of cultures, covering the entire food-producing cultural succession, has been classified into six phases or five stages (Fairservis 1971; Dales 1965), each culturally and technologically more advanced than the preceding, with the last phase representing the Civilization itself. This view would postulate prosperous peasant village-economies of highlands leading to rich urban ones, after becoming sufficiently skilled to exploit the potentials of the flood plain, with the whole empirical tradition of food production, derived from Iranian ancestry for a successful adaptation to the new environment. By implication this means that the Indus Civilization was the natural culmination of a long process. The genesis of this Civilization or its ethos, remains, however, unexplained. A close study of the Baluchi hill cultures no doubt reveals a meaningful pattern of somewhat uniform development level of material culture but they lacked the catalytic agent or the motivating factor to take the next vital step. According to Wheeler (1968) none of these hill cultures shows any clear primary or organic relationship with the Indus Valley culture 'which remains obstinately a creation of its own lowland environment.'

Related to the above there is another view which, based on recent archaeological evidence (obtained from excavations at Tepe Yahya and Shahr-i-Sokhta), demonstrating full-scale development of partly-literate and economically-demanding complex societies on the Indo-Iranian borderlands at the end of the fourth millennium B.C., points towards eastern Iran as the homeland of the formative influence on the Indus Civilization. It is reasonable to argue that fairly-advanced village-communities of Baluchistan like Kulli, with possibilities of synoecism, were in contact with Iranian highlands and southern Mesopotamia, Khuzistan, Turkmenia, Seistan and southern Afghanistan, and the native development of village-town complex, as represented by these cultures, seem to have been spurred on by the diffusion of idea of civilization from this early urban interaction sphere. The possibilities seem to have been exploited at many places with varying measures of success. Recent excavations at Tepe Yahya and Shahr-i-Sokhta have provided a synchronism between proto-Elamite tablets, Nal Ware, terracotta bulls, etc. The former site also yielded Persian Gulf seal, seal impression with unmistakable Indus script on a potsherd and Mesopotamian ceramics. The presence of a late fourth and early third millennium protoliterate community in the area may in turn have provided the stimulus for the system of writing in the Indus Civilization (Lamberg-Karlovsky 1972). Besides, findings at Bahrain, Failaka, Bampur, Altyn Tepe, Shortugai, Saraikhola, Gumla have already indicated a pattern of communication between Mesopotamia, Seistan, Turkmenia, Afghanistan, Baluchistan and Sind, which would support the movement of ideas. The role of the idea and stimulus diffusion from Mesopotamia, Iran, Seistan, combined with genius loci has to be duly recognized. In the third millennium B.C. the idea of civilization was no doubt in the air in Western Asia.

During the last four decades Early Harappan or Pre-Harappan material has been identified through surface exploration at more than two hundred sites, both in India and Pakistan. Of these, over a dozen have been excavated, noteworthy amongst which are Amri, Harappa, Kot Diji, Saraikhola, Gumla, Rehman Dheri, Tarakai Qila, Hathial, Lewan, Sheri Khan, Ghazi Shah, Mehrgarh, Jalilpur and Balakot in Pakistan, and Kalibangan, Banawali and Siswal in India. At Amri, Harappa, Kot Diji, Gumla, Balakot, Kalibangan, Banawali and Siswal, the Pre-Harappan settlement lay stratified below a Harappan one. Excepting Amri and Banawali, the sequence of occupation at these sites was not continuous, showing a fully-developed Indus Civilization appearing after a stratigraphic hiatus or break indicative of abandonment, however, temporary, of the site. Notwithstanding this phenomena, field research, oriented towards early cultural development in the greater Indus Valley (Mughal, 1990), has, however, provided evidence to indicate that cultural processes leading to full urbanization were already underway in the region since the end of the fourth millennium B.C. Detailed analysis of the material excavated from the sites of the antecedent cultures in the greater Indus Valley including Kot Diji, Rehman Dheri, Jalilpur, Saraikhola, Amri, Balakot, Kalibangan, etc. have shown the presence of many elements, namely, fortification, ceramic forms, including terracotta objects, like cakes, bangles, toycart wheels and bull and metal technology, which later characterize the Indus Civilization. This phenomenon lends nevertheless some sense of unity to the stage of development in certain cultural traits, styles and technique, antecedent to the emergence of cities in the Indus plains. The emergence of large urban centres seems to have resulted from many complex inter-related cultural processes which were already underway at the beginning of third millennium B.C. It is reasonable to argue that a model of civilization, however abstract, was present in the minds of the Indus founders and the setting was socio-culturally mature enough to assimilate it. Some of the settlements in the plains were obviously on the threshold of civilization before the Harappan Civilization.

At the same time it must be admitted that the idea of the grid-patterned city with centralization of a variety of interdependent activities, monumental architecture, elaborate system of weights and measures, extensive copper and bronze metallurgy and the system of writing, being the hall-mark of civilization, were conspicuously absent in these cultural manifestations. It has been argued that the beginnings of writing can be seen in the graffiti and potter's marks occurring on the pottery of these cultures which are designated as Early Harappan or formative stages of Indus Civilization. Nearly half of the basic forms of the Indus Script have been found to be available on Pre-Indus sites

(Lal 1992). This admittedly was a stage when overland contacts were established with Turkmenia, Afghanistan, Seistan, Iran, Oman, Iraq, etc. For the origin of the Harappan city it has been speculated that the increase in agricultural produce in the villages forced the need of markets and hence a merchant class (Agrawal 1972-73). The merchants not only planned Harappan cities, but also deliberately standardized the cultural traits of these cities. The Harappan abruptness was thus argued as deliberate and not a process of natural growth.

To the often repeated view that the Indus Civilization was a sudden efflorescence with no known beginning, Ghosh (1965) had very convincingly stated that 'while death from unidentified causes is understandable, natural birth is an unnatural phenomenon.' Elaborating his views he had postulated that 'we have still to find the infant and the adolescent Harappan... Perhaps we have to look for him within the culture itself and not outside it.' He visualized a situation with 'a set of people with a receptive mind, perhaps led by a few genius dictators, bent on all-round improvement over existing conditions,' who woke up to new ideas and worked themselves vigorously, trade with west Asia giving them the realization of the need for standardization and 'seeing the obvious advantages of the emerging order, their kindred far and near would soon align themselves to the new march of progress. Thus would be born a people with a new ethos.' According to Gupta, the much needed opportunity for the take off towards a richer and more complex urban setup was provided by natural calamities, e.g. tectonic disturbances at Kalibangan and a devastating fire at Kot Diji, there being no evidence of the bearers of the Harappan culture being responsible for the destruction of the settlements. 'Calamities themselves generate, almost all of a sudden, a number of new forces and factors which successfully bring about socio-economic changes of vast dimensions. The emancipator, one or a group of a selected few, becomes the hero' (Gupta 1978).

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6

Explorations in Sindh and the Sindh Archaeological Project

Louis Flam

Introduction

In 1927, N.G. Majumdar began a series of archaeological explorations and excavations that remain a truly remarkable accomplishment in the history of South Asian archaeology. Majumdar had excavated at Mohenjo-daro since 1925, and in the winter of 1927-28 received a small grant to excavate at the site of Jhukar, only 27 km. (as the crow flies) from Mohenjo-daro. At Jhukar, he found evidence of the "Indus" culture (as known from Mohenjo-daro) and a late Indus culture he named after the type-site—"Jhukar". When H. Hargreaves became Director General of Archaeology in India (1928), Majumdar proposed to carry out explorations and excavations in the Indus river floodplain region of Sindh. By the end of March 1930, he had discovered and test excavated the sites of Thar ro Hill, Amri, and Chanhu-daro. Amri revealed a "pre-Indus" occupation which Majumdar named the "Amri Culture".

Starting from Dokri (near Mohenjo-daro) in October 1930, Majumdar's third expedition ventured toward Manchar Lake, south-westward along the Kirthar Mountains piedmont, and south through the arduous hills and valleys of Sindh Kohistan, concluding in March 1931. During three seasons of research in Sindh, Majumdar (1934) had discovered thirty-two prehistoric sites attributable to the Amri, Indus, and/or Jhukar cultures. Actually, he had discovered many more sites, but for unknown reasons some were not named or their precise cultural affiliations were not given even if they were named.

After a lapse of nearly 7 years, Majumdar resumed his exploratory research, arriving at the Gaj Nai bungalow in the shadow of the Kir thar Mountains on November 1, 1938. The goal was to explore the piedmont area and river valleys of the Kir thar Mountains from the Gaj Nai (in the south) to the Sain Nai (in the north). If his previous fieldwork in Sindh can be considered adventurous, this latest expedition required exceptional ambition, effort, and courage. On November 7, the archaeological team moved their camp inside the Kir thar Mountains 9 km. along the course of the Gaj Nai to the newly discovered site of Roheljo-kund. Work proceeded there for several days. Near the site was a small shrine, which still stands today, and while Majumdar offered morning *pūjā* on November 11, 1938, the archaeologists were attacked by dacoits. Majumdar was fatally shot! The murderer was Abdul Rahman Brohi, a notorious dacoit of the area (Brohi was shot in 1940 near Garhi Khairo in District Jacobabad. I am grateful to Sobho Gianchandani of Bindi village and a prominent lawyer of Larkana for information about Brohi and Majumdar). South Asian archaeology had lost a brilliant pioneer. Majumdar's discoveries from the ill-fated Gaj Nai expedition were posthumously published by Krishna Deva and Donald E. McCown (1949), the former a member of the original team. Eight more prehistoric sites were added to the former thirty-two discovered by Majumdar, totalling forty prehistoric sites in Sindh. But Majumdar's death served as an ominous warning, and the areas between the Gaj Nai and the Sain Nai were shunned by archaeologists for decades.

Subsequent archaeological research in Sindh was carried out in the Indus river floodplain region, with one exception. H.T. Lambrick, who served as a District Officer in Sindh from 1927 to 1946, located nine new sites in the Kirthar and Kohistan regions. Lambrick (1941, 1942, 1944) referred to his explorations (no excavations were carried out) as "amateur excursions", and his discoveries were probably made while touring his district as a British officer. Lambrick was not an archaeologist and his descriptions of the sites (e.g., no measurements were taken, etc.) and surface finds (e.g., no illustrated material, and only "black-on-red", i.e. Indus pottery, and Amri wares were distinguished) are of limited usefulness. But his work was important because it indicated that further discoveries awaited future archaeological research in the Kirthar and Kohistan regions of western Sindh.

Sindh Archaeological Project

The Sindh Archaeological Project (Louis Flam, Director) has been conducting archaeological and geomorphological research in the Indus river alluvial plain region (Lower Indus Basin) and in the mountainous (Kirthar Mountains and Kohistan) regions of western Sindh since 1976. Specifically, the Project has studied the fluvial geomorphology of the Indus river and its tributaries (Flam 1986, 1993a; Jorgensen, *et al.* 1993), has extensively explored the mountainous Sindh-Baluchistan frontier from the Sain Nai (in the north) to the Baran Nai (in the south), and has excavated the fourth through third millennia B.C. site of Ghazi Shah in Sindh Kohistan (Flam 1993b, 1993c).

As these new explorations traversed areas visited by Majumdar in the southern Kirthar and Kohistan regions, elderly villagers who had worked with Majumdar in their youth greeted the archaeological team with warmhearted memories and stories of the martyred archaeologist. At Ghazi Shah, Jernail Khan fondly recalled that as a young man he had done the actual digging for Majumdar. Everywhere, everyone affectionately and respectfully remembered Majumdar! The purpose of the present paper is to briefly describe some of the recent discoveries made by the Sindh Archaeological Project in three regions of Sindh: the Lower Indus Basin, the Kirthar Mountains and the subjacent piedmont plain, and Sindh Kohistan.

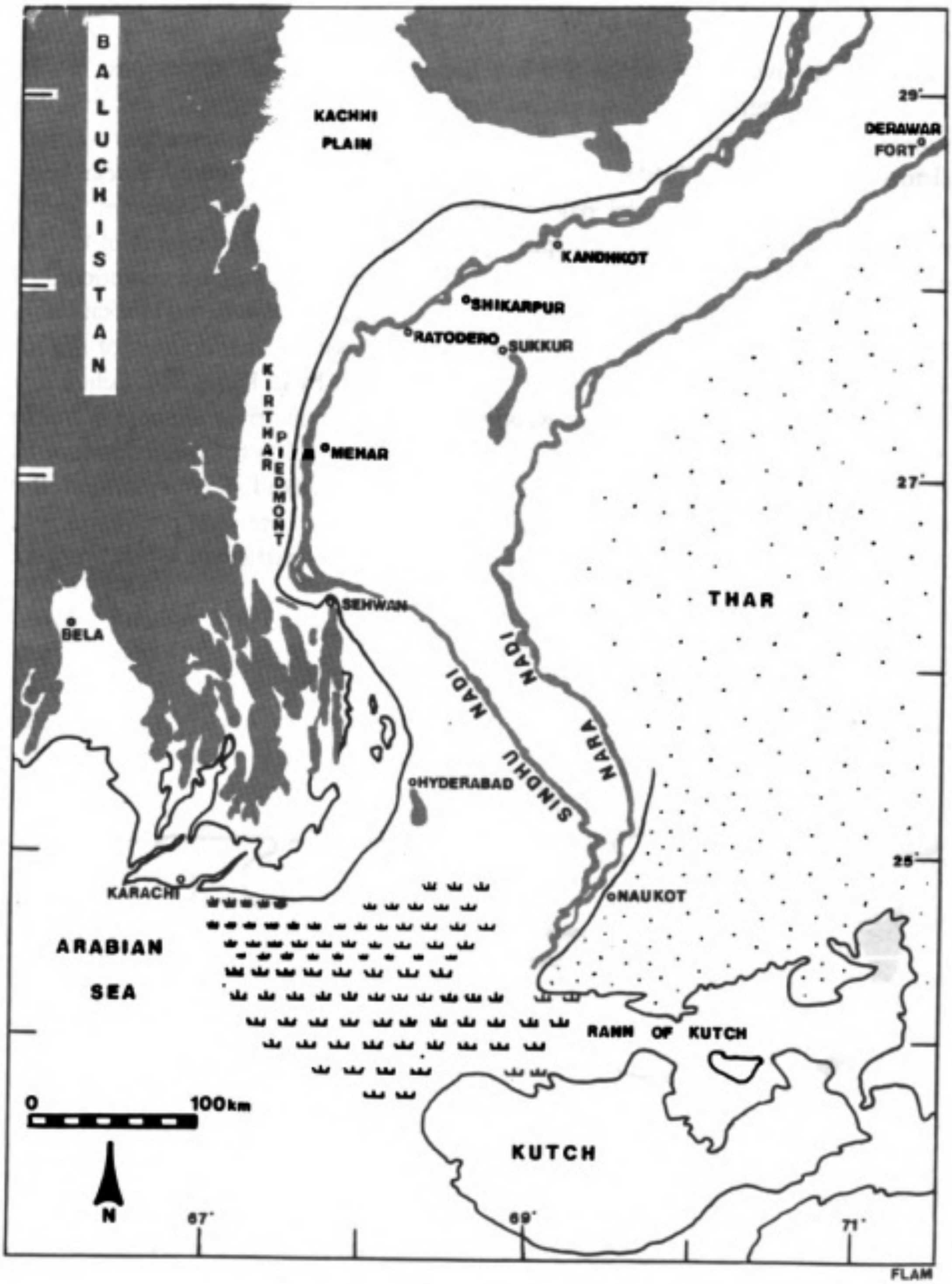

Fig. 1. Palaeogeography of Sindh (*c.* 4000-2000 B.C.)

LOWER INDUS BASIN

The Indus river is presently, and has been in the near and distant past, a fluvial system of great magnitude and dynamics. Archaeologists have generally and mistakenly assumed that the location of the river has remained unchanged since the end of the Pleistocene. Lambrick (1964) and Fairservis (1967) were the only researchers to recognize that the Indus fluvial paleoenvironment may have been different from the present-day, while Holmes (1968) explicitly delineated historical remnants of the Indus river and showed them to have been dramatically different from modern conditions.

The Sindh Archaeological Project has used aerial photocomposites, landsat imagery and field research to locate fluvial remnants associated with former courses of the Indus river in the Lower Indus Basin. Fieldwork was carried out by L. Flam, S.A. Schumm and M.D. Harvey and included the team walking across the Indus river channel at Sehwan, Mohenjo-daro, Sukkur, and Hala (We are extremely thankful to the Makhdoom of Hala and his representative Khalifa Mohammad Yusuf, and Abdullah Waryah and Babar Soomro who made the latter traverse possible). In addition, pre- and post-barrage map and gauge records were analyzed (David Jorgensen's participation and expertise

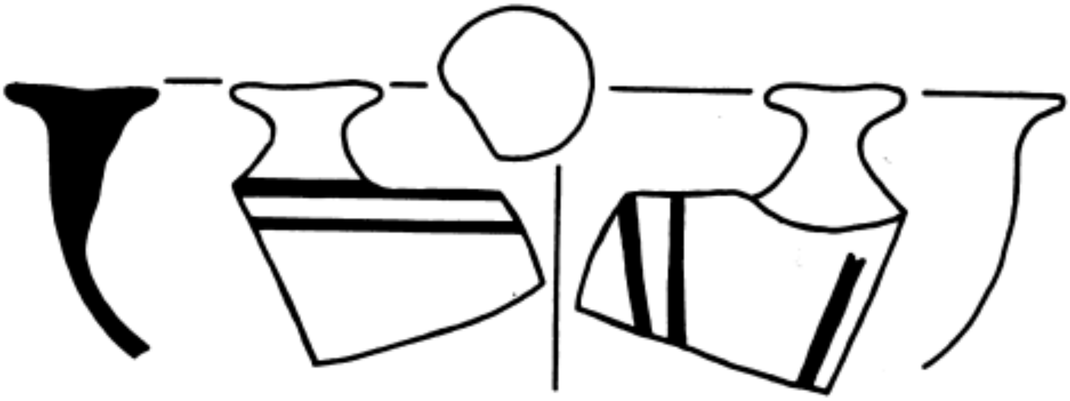

Fig. 2. Stud-handled bowl from Lohumjo-daro, Sindh

were critical to the success of this analysis) and a new understanding of the Indus river morphology and dynamics were derived from the data (Jorgensen *et al*. 1993).

For the fourth and third millennia B.C. a "prior" course of the Indus river was recognized and named the Sindhu Nadi (Flam 1993a). For this time period a second and exclusive perennial river, the Nara Nadi, was delineated in the eastern portion of the Lower Indus Basin. The Sindhu and Nara rivers formed a confluence in the south-eastern portion of the Lower Indus Basin, with the prehistoric coastline located in a more northerly area than that of the present day (Fig. 1).

Archaeologically, many of the sites previously discovered in the Lower Indus Basin were revisited. Some prehistoric sites, for example, Deh Mari Sabra (*Pakistan Archaeology*, 1, p. 10), have been obliterated since their initial discovery and their record has been lost forever. Another and potentially more important site, Lohumjo-daro, which was discovered by Majumdar (1934: 48-58) and researched by Flam (1981), was destroyed in 1985 during the construction of a sugar-factory. Majumdar's excavations at Lohumjo-daro showed that the site had been occupied during the Mature Harappan and Jhukar (Late Harappan) periods. The illustrated stud-handled, convex-sided bowl (Fig. 2) discovered by Flam at Lohumjo-daro is an important find which links the site with sites in Gujarat, for example, Rangpur and Lothal. However, the nature of that link and the precise chronology of the interactions will remain enigmatic, because excavation cannot be implemented to answer important questions raised by the surface-materials. Paradoxically, it is likely that human hands have caused greater loss of sites in the Lower Indus Basin than burial by Indus river alluviation.

KIRTHAR MOUNTAINS AND SINDH KOHISTAN

The course of Majumdar's explorations in Sindh was irregular, and particularly his explorations in the Kohistan region were not comprehensive. For example, Majumdar's search for sites took him along the south-western shore of Manchar Lake, north of the Nuko Hill. Around the lake district he discovered the sites of Lal Chhatto (Trihni), Mashak (Shah Hassan), Lohri and Lakhiyo. Travelling along this route, Majumdar missed the sites of Sanasi Buthi and Kai Buthi, later discovered by Lambrick (1944, 1964), and the site of Nuko reported by Flam (1981). This note is not meant as a criticism of Majumdar, but as a caution to researchers who may think that a total record of sites and assemblages is known from the Kirthar and Kohistan regions.

A cautionary note should also be voiced regarding the use of Majumdar's pottery affiliations and cultural interpretations in too literal a manner. Basically, the term "Amri culture" requires redefinition in the light of the new evidence discovered by the Sindh Archaeological Project (see Flam 1981). In addition, the extent and chronology of Kot Dijian assemblages and sites in western Sindh needs explanation. The site of Kot Diji was discovered by Ghurye (1936) in 1935, but its prehistoric importance was not revealed until Khan's (1965) excavations 30 years later, and its significance was not fully recognized until Mughal's (1970, 1973, 1990) more recent research. Furthermore, when Majumdar (1934: pp. 132-135) discovered Kohtrash in Sindh Kohistan, the site was reported to have been a "station" of the Amri culture, as was the site of Rajo-daro, located in the Kirthar piedmont region near the Gaj Nai (Krishna Deva and McCown 1949: pp. 25-27). More recent research at Kohtrash and Rajo-daro (Flam 1981) has shown them to be covered with Kot Diji pottery, with a few Amri sherds and wares from Baluchistan in the assemblage. This indicates that the pottery assemblages from sites in western Sindh are much more complex than the Amrian/Harappan identifications used in the past literature to culturally and chronologically characterize sites and regions. Previous designations of sites simply identified as Amrian, Kot Dijian, or Harappan (or combinations of each) are impeding an accurate understanding of cultural developments in Sindh and adjacent regions during the fourth and third millennia B.C.

ACRO-SANCTUM

While describing sites in Sindh Kohistan, Majumdar noted that some possessed a unique aspect which he described as a "hill": Gorandi 'A', Lakhshmirjo-Mari at Naing, Damb Buthi, Dhal, Arabjo-Thana, and Othmanjo-Buthi. The hill at Naing was 30 m. high. At almost all of these sites, foundation-walls of domestic structures were found spread out beyond the foot of the hill. These hills went undistinguished in the archaeological literature even though Lambrick (1941, 1944, 1964) discovered four new sites possessing what he called a "Miri" or "headquarters" mound: Taung, Kandi Wahi, Lundi Buthi, Kai Buthi and Lalanji Mari. The Sindh Archaeological Project has revisited almost all of the above named sites and has discovered additional examples at Salari, Kaharjo Kotiro, Shahreca and Cohkel Damb. This settlement type with its unique conically-shaped hill and domestic structures at its base has been named an "acro-sanctum" (Flam 1981, 1986). Acro-sanctums occur at fifteen sites in the Kirthar and Kohistan regions of western Sindh. They consistently form an integral part of sites, that is, they are not separated from the habitation area by non-structural interstitial space (as is found between the citadel and lower town areas at Mohenjo-daro). Their heights vary, as do the areal dimensions of their summits, but they all exhibit several common features. All of the acro-sanctums are conically-shaped hills formed by human construction, although in some cases a natural hill was used to obtain an initial elevation above the surrounding plain where the domestic structures were found. The slopes of the acro-sanctums possess massive stone walls constructed in two or more tiers from the summit to the base. Access to the summit was attained *via* a ramp or stairway positioned on the southern side of the acro-sanctum. Dating the origin of the acro-sanctums is enigmatic. Surface materials indicate that they date at least back to the Mature Harappan period (2600-2000 B.C.), but some of the acro-sanctums also show evidence of an Early Harappan construction (3000-2600 B.C.).

GABARBUNDS

Throughout western Sindh and Baluchistan researchers have reported the occurrence of rock, or rock and soil gabarbunds (dams) constructed by prehistoric communities to supposedly trap and store water for domestic and agricultural purposes (Hughes-Buller 1906; Stein 1931; Raikes 1965). Found in present-day arid and semi-arid climatic regions, the presence of gabarbunds has been used to hypothesize greater amounts of rainfall in the prehistoric past (Marshall 1931), an inference refuted by later writers (Raikes and Dyson 1961; Flam 1981, 1986; Harvey and Flam 1993). In addition to questions about their function, there has been ambiguity concerning their dating (Possehl 1975).

The Sindh Archaeological Project has discovered numerous gabarbunds in the Kirthar and Kohistan regions, has studied their forms and functions, and has found convincing evidence that many of the gabarbunds are indeed prehistoric. Although the construction materials of the gabarbunds vary slightly, their configurations and dimensions vary greatly depending on specific geomorphic location and function. At some locations gabarbunds occur as single walls (Pl. 6. 1) with dressed or undressed stone faces, sometimes with an inner core of earth and rock. Construction oftentimes consists of multiple lifts, with one example having multiple tiers (Pl. 6. 2).

At Phang in Sindh Kohistan, four gabarbunds which were components of a soil and water conservation system were studied by the Sindh Archaeological Project (Harvey and Flam 1993). The gabarbunds are associated with two Kot Dijian settlements. Three of the gabarbunds (South, East and North) closed off water gaps and a strike valley, respectively, to form a detention basin with a pool perimeter about 0·4 km.^{2} in area (Fig. 3). As a part of this system another gabarbund (West), upstream of the detention basin, removed coarse sediment fraction from seasonal, ephemeral flows of the Phang Nai. A fifth gabarbund, not associated with the detention basin, named Spring Dam, was located in a water gap to the north of the detention basin and acted as a low-head weir to distribute flow from a perennial spring onto the cover floodplain of the Baran Nai. Faulting had eliminated the spring flow, which led to the construction of the gabarbunds for the purpose of subsurface storage of detained flows in the detention basin. Obviously,

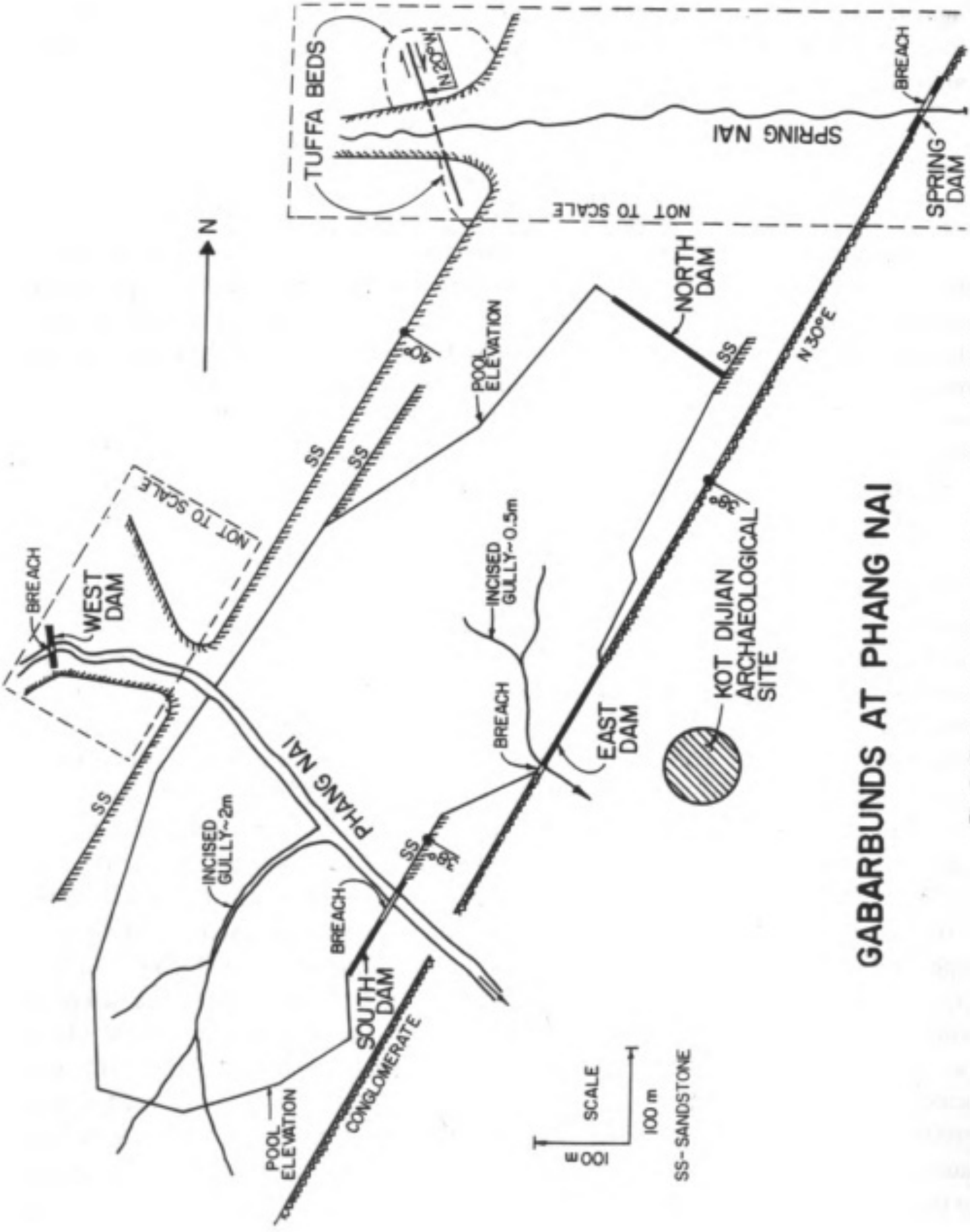

Fig. 3. Gabarbunds and Detention Basin at Phang, Sindh Kohistan

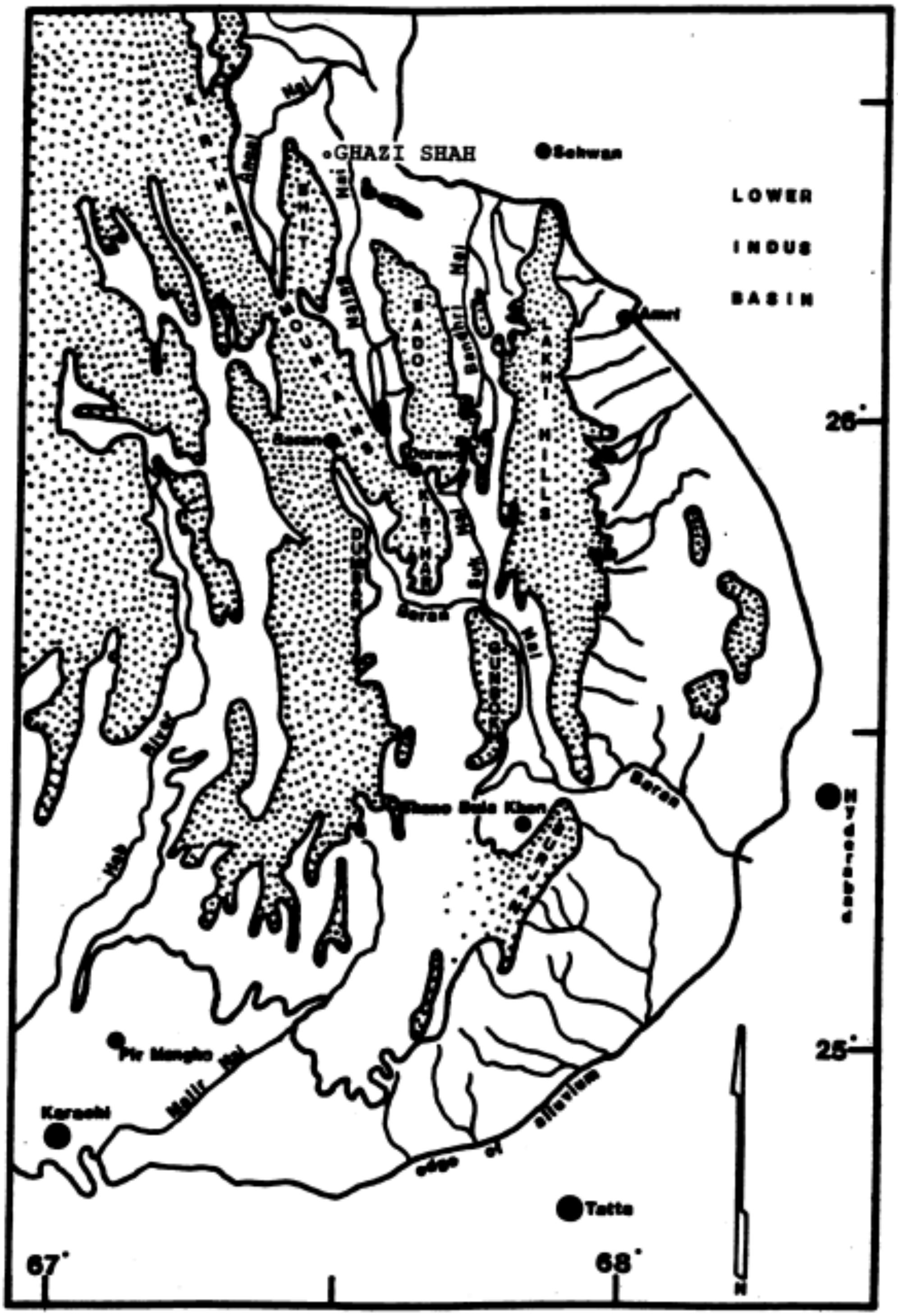

Fig. 4. Sindh Kohistan, showing the location of Ghazi Shah

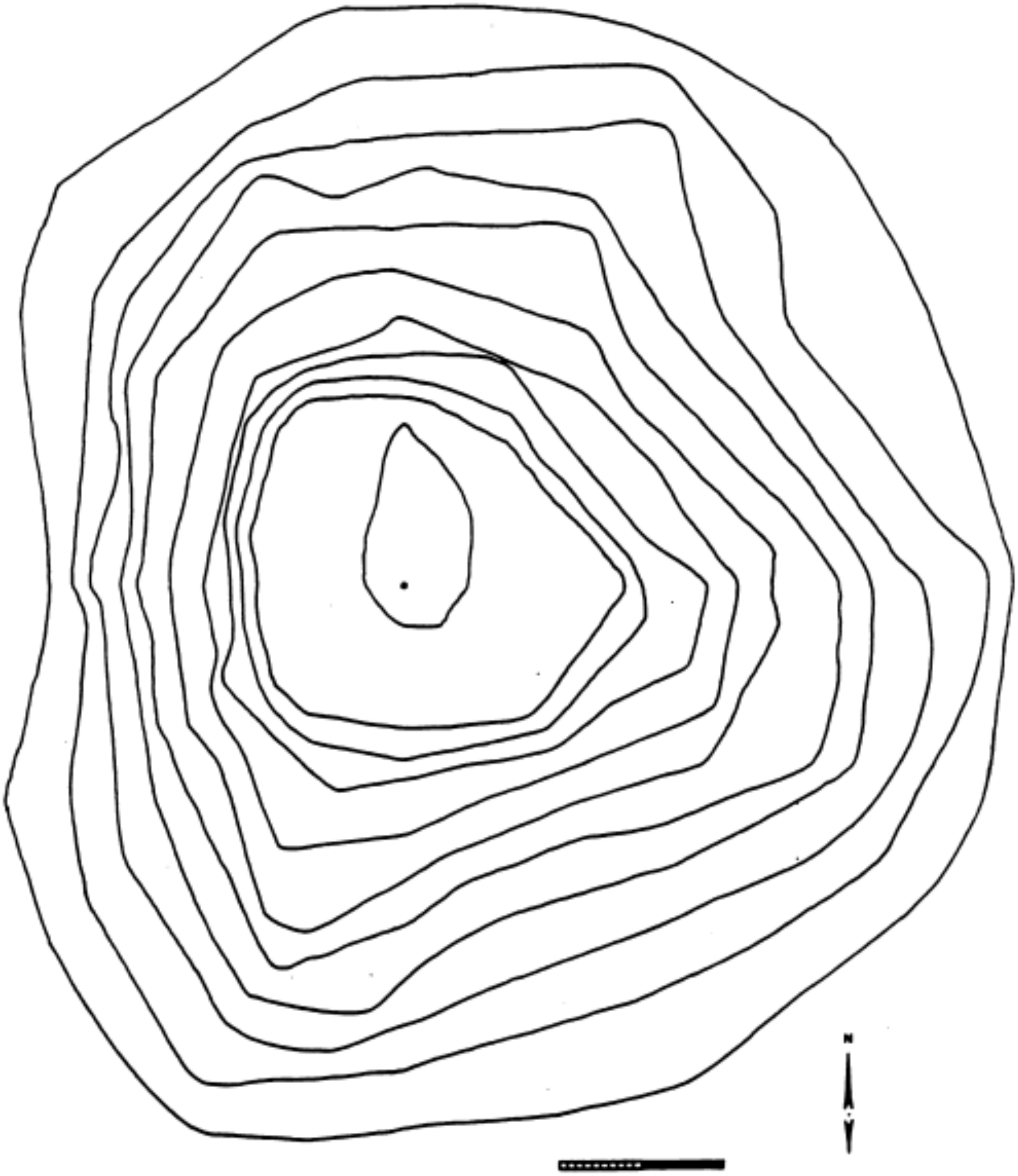

Fig. 5. Contour map of Ghazi Shah (1 m. intervals)

exceptional ingenuity and engineering expertise were applied to the construction of the gabarbunds, the coarse sediment trap, and the detention basin of the Phang system.

In the Kirthar Mountains region many prehistoric sites were discovered in the narrow stream valleys which transversely cut through the hills from west to east. The sites are usually located on terraces, or tablelands, above present-day stream-bed depths. Stream incision has "raised" these plateau areas high above flood level so that the prehistoric sites are well preserved. In addition to the presence of acro-sanctums at several of the sites, many exhibit *in situ* agricultural field boundary markers of stone (Pl. 6.3), and are datable from surface artifacts to the end of the fourth millennium and the third millennium B.C.

GHAZI SHAH

The archaeological site of Ghazi Shah (26° 27' N.; 67° 28' E; Fig. 4) is located approximately 1·5 km. east of Pir Ghazi Shah village in the northernmost part of Sindh Kohistan. Ghazi Shah was discovered and test excavated by Majumdar (1934: pp. 79-86, 95-103) in December-January 1930-31. The Sindh Archaeological Project conducted new excavations at the site in 1985, 1986, and 1987 (Flam 1993b, 1993c). The form of the site is a single mound which measures 136 m. north-south and 124 m. east-west (1·69 *ha*), with a maximum height of 11 m. above its surrounding plain (Pl. 6.4). The recent excavations at Ghazi Shah were located in the north-western portion of the mound (Fig. 5). Excavations began on the flat, topmost part of the site (Area 1) and proceeded down the slope of the mound (Area 2 and Area 3). The three excavation-areas descended to the middle portion of the mound's slope.

Area 1

Excavation was carried out to a depth of approximately 50 cm. and revealed cultural materials of an Islamic Period occupation. No structures were encountered. The strata consisted of alternating layers of trash and water/wind eroded soil. The erosional layers were practically devoid of artifacts, as one might expect, whereas the trash layers contained a variety and quantity of artifacts and ecofacts. Finds included glazed and painted pottery, terracotta beads, glass beads, stone beads, chert blades and iron pieces of unidentifiable objects. Several coins have been identified as belonging to the Mughal Period (I am grateful to Pakistan's leading numismatist, Abdullah Waryah, for their identification).

Area 2

Excavation in Area 2 began at the juncture of the flat and sloping aspects of the mound and descended 9·5 m. down the incline of the mound. The first 3 m. of Area 2 revealed several rooms constructed of stone, and stone and mud-brick walls. Finds included typical Mature Harappan pottery, shell and discoid steatite beads, triangular-shaped terracotta cakes and the body sherd illustrated in Fig. 6. Two radiocarbon samples from these loci provided the following dates:

BETA 33357	3840 ± 90 B.P.	Calibrated: 2425-2160 B.C.
BETA 33358	4150 ± 70 B.P.	Calibrated: 2915-2635 B.C.

Proceeding down the slope of the mound in Area 2, the subsequent 4 m. of excavation uncovered nine wall-foundations of undressed stone (cf. Kot Diji; Khan 1965), none of which turned a corner, nor were connected one to another. This portion of the mound descends quickly at a sharp angle and was probably subjected to a great deal of erosion and damage to structures. Finds from this sub-area included stone, shell and steatite beads, as well as a lapis lazuli bead with tiny steatite beads pushed inside the perforation holes on either side, probably from a necklace of alternating lapis lazuli and steatite beads. Also found were several perforated terracotta disks, large-size incised clay beads (Casal 1964: Fig. 122, 1-3; Khan 1965: Plate XXIXb, 15, 16, 18), a large number

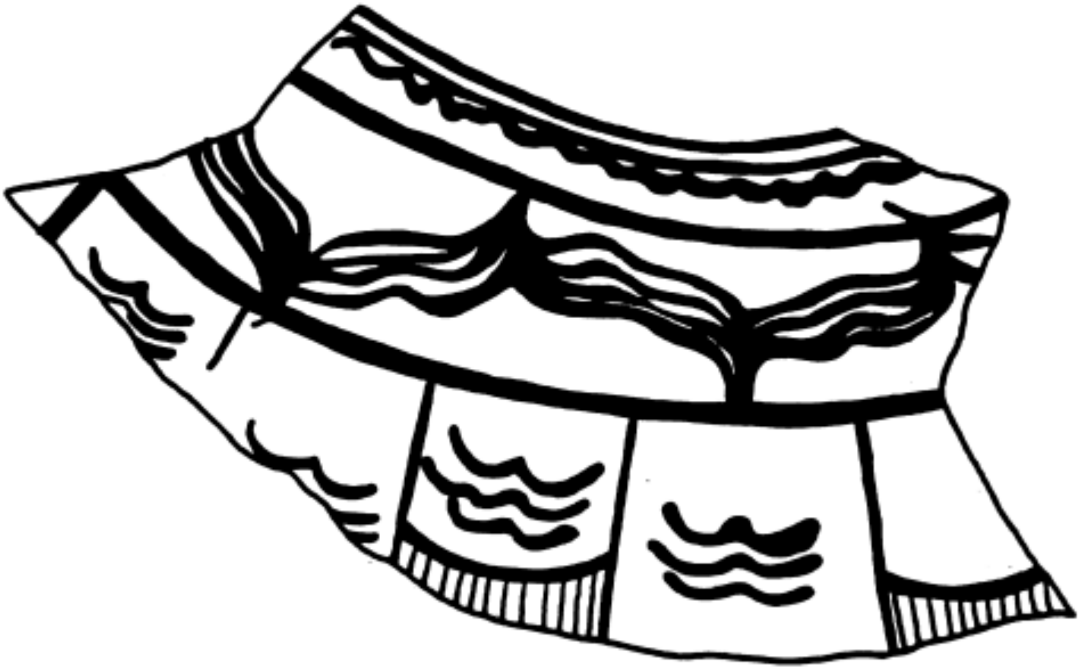

Fig. 6. Potsherd from Area 2, Ghazi Shah

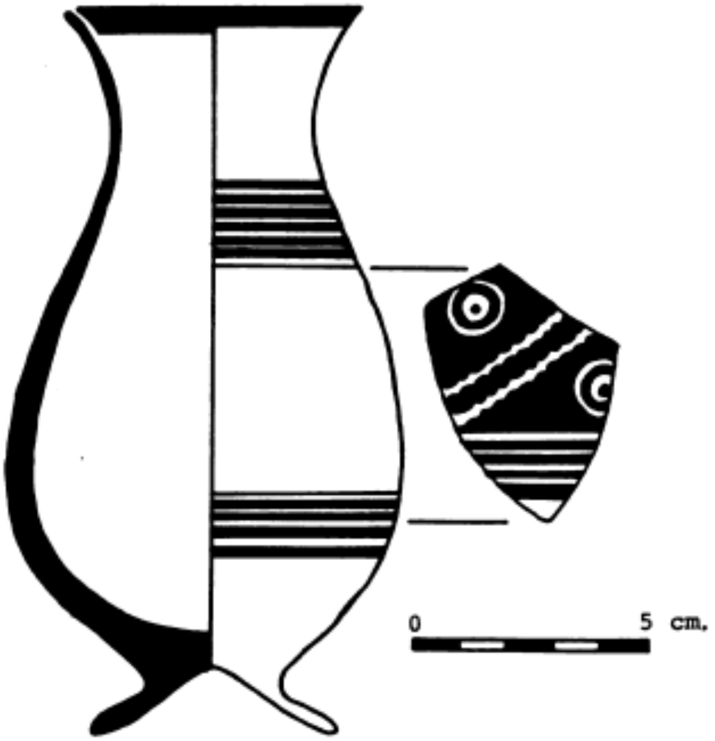

Fig. 7. Pot with the design of Quetta Ware, Area 2, Ghazi Shah

of chert blades and tools, and a number of stone balls (Casal 1964: Plate XXVIIIa; Khan 1965: Plate XXXI, 1-4). Notable pottery from this sub-area include a small cup with Quetta ware design (Fig. 7) and "corrugated" bowls (Casal 1964: Fig. 62, 201; Khan 1965: Fig. 22, 7). A single radiocarbon sample from a stratum just above the cited and illustrated Quetta ware cup yielded the following result:

BETA 32804 4420 ± 100 B.P. Calibrated: 3040 B.C.

Similar cup-shaped vessels and Quetta ware design decoration have parallels in Mehrgarh, Period VII. The cup from Ghazi Shah has a black paint on a polished dark-red slipped surface; the Mehrgarh examples are unpainted and on other vessels which are painted the design is carried out with a brown paint on a cream paste.

Area 3

Excavation in Area 3 produced structures and cultural strata almost immediately below the surface of the mound. Nine rooms were delineated, the walls constructed with stone foundations and mud-brick superstructures.

All excavated soil was sifted through 3 mm. mesh. This procedure produced two outstanding results. Remarkably interesting is the find of a great number of beads. Beads, made of copper, shell, terracotta, steatite, agate, carnelian and lapis lazuli, were recovered. Sifting also produced spectacular results in Locus VII, Locus VIII and Locus IX (also designated rooms 7, 8 and 9, respectively). Numerous whole and broken micro bead-drills were discovered. Some of the drills were made of grey chert, the stone commonly used to manufacture other tools, including blades. The majority of the drills, however, were made of an olive green (Munsell Color 5Y 4/3-4/4) chalcedony, a cryptocrystalline variety of silica, the green varieties of which are known as prase or chrysoprase. Also found were pieces of unworked ("raw") stone used to manufacture the green-stone drills, debitage (1-4 mm. microflakes) from shaping the drills, and partially-finished drills in different stages of manufacture. The green-stone drills are similar to those previously reported from Mehrgarh III (Jarrige 1982: p. 83 and Plate 6.13; Lechevallier 1984: p. 46 and Fig. 7.3, 3), Shahr-i-Sokhta II-III (Piperno 1973), and Chanhu-daro (Mackay 1943: pp. 210-213; Plate XCIII, 6. 7, 8; Plate LXXXVIb, 8 a-h). Another example from Amri (Casal 1964: p. 152, and Fig. 121, 6) can possibly be added to the inventory. The examples from Amri came from Periods IC and ID, radiocarbon dated (calibrated) to 3375-3020 B.C. (TF-863). At Ghazi Shah, two radiocarbon samples from the sub-area where the bead drills were found gave the following results:

BETA 18536	4520 ± 70 B.P.	Calibrated: 3375-3145 B.C.
BETA 18537	4460 ± 90 B.P.	Calibrated: 3370-2970 B.C.

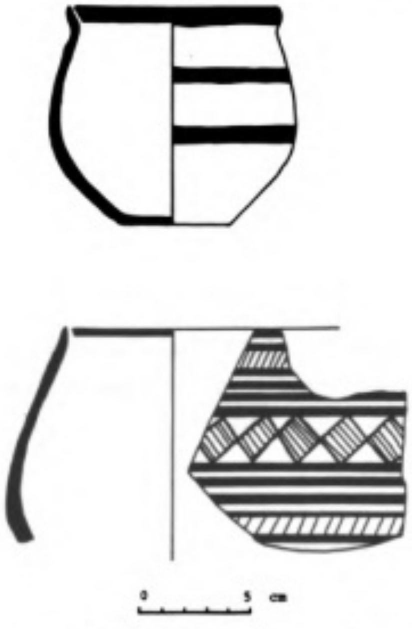

Fig. 8. Pottery from Area 3, Ghazi Shah

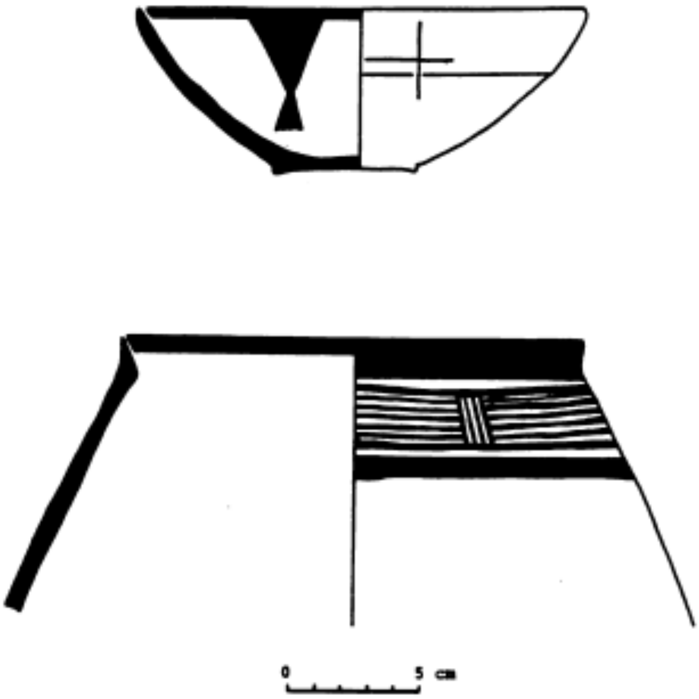

Fig. 9. Pottery from Area 3, Ghazi Shah

With the bead-drills were found unworked pieces of lapis lazuli and agate, along with debitage (large and microflakes) from working the agate into beads. Barrel-shaped agate beads were recovered in various stages of production: roughly shaped; shaped but not smoothed; shaped and smoothed but not drilled; shaped and smoothed and partially drilled, or broken during drilling; shaped, smoothed, and drilled through (the completed hole was achieved by perforating the bead from both ends towards the middle). A small polishing stone was also found in the same sub-area.

Examples of pottery from Area 3 are illustrated in Figs. 8-11. Several vessels bear "potter's marks" or inscribed signs. Area 3 also yielded the following: perforated terracotta disks, many terracotta bangle-fragments, a bull figurine, bone implements (awls and decorative pieces), chert blades and other tools, a fine chert core, many stone grinding tools and stone balls.

It should be noted that excavations have only been completed half-way down the slope of the mound and to a depth of only 50 cm. (foundation stones were reached at that depth). With radiocarbon dates pushing 3300 B.C. in Area 3, it is fully expected that the base levels at Ghazi Shah will date back between 4000-5000 B.C., if not earlier.

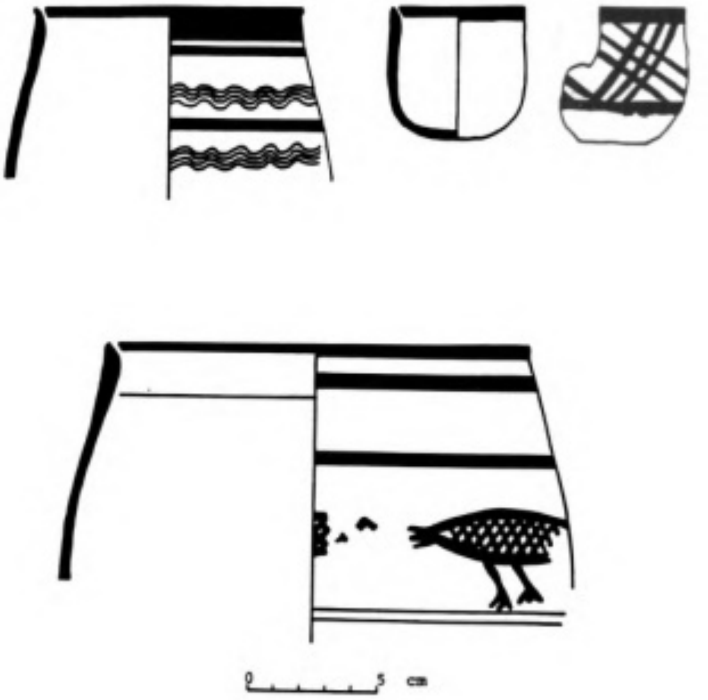

Fig. 10. Pottery from Area 3, Ghazi Shah

Conclusions

N.G. Majumdar's explorations and excavations more than fifty-five years ago brought to the fore an extensive distribution of prehistoric sites in western Sindh. After Majumdar's tragic death the Kirthar and Kohistan regions were, to all intents and purposes, unresearched. Majumdar's *Explorations in Sind*, and Krishna Deva and McCown's *Further Explorations in Sind: 1938*, were the primary references for the prehistory of western Sindh. Later excavations at Amri and Kot Diji, as well as more recent research in Baluchistan, the North-west Frontier Province, and Cholistan have stressed the need for new research in the areas explored by Majumdar and those areas which were not explored because of his death and continuing danger in those regions.

The Sindh Archaeological Project has explored the Kohistan and Kirthar regions of western Sindh, including the area from the Gaj Nai to the Sain Nai. Almost all of the sites originally located by Majumdar were revisited and many new sites were discovered. The new reconnaissance focused not only on the evidence of material culture for establishing site and regional settlement patterns, but also added a specifically researched ecological dimension to the understanding of prehistoric cultures.

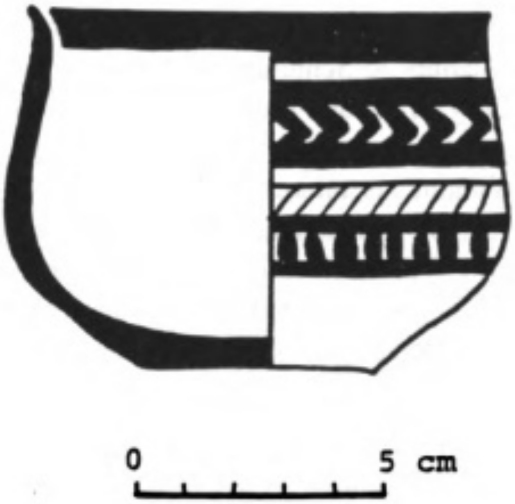

Fig. 11. Bowl from Area 3, Ghazi Shah

New excavations at Ghazi Shah will provide a clearer and more precise understanding of cultural and chronological development in western Sindh and its relationship to developments in adjacent regions. Ghazi Shah is a rich site with excellent preservation of archaeological data. Continued research at the site will have an important bearing towards a fuller understanding of prehistoric cultural developments in South Asia.

Acknowledgements

The research carried out by the Sindh Archaeological Project could not have been done without the support of many individuals and institutions in Pakistan. None of this research would have been possible without the support, assistance, interest and patience of Nawab Shabir Ahmed Khan Chandio, and Dr. and Mrs. Mohammad Hasan Rizvi.

The fieldwork and research on the former courses of the Indus river was made possible through the good offices and officers of the Soil Survey of Pakistan, the Indus Water Commission, and the Irrigation and Power Department of the Government of Sindh: I wish to thank Muhammad Alim Mian, Mohammad Akram, Ch.M. Rafiq, Abdul Hadi Ansari, Muzammil Qureshi, Mohammad Idries Rajput, Mahades J. Mathrani, Iqbal Sheikh, and Zeeshan Ahmed Farooqi.

I also wish to gratefully acknowledge and sincerely thank the following individuals whose assistance and encouragement made the Project and particularly the excavations at Ghazi Shah a success: Mahtab Akbar Rashdi, Dr. Ghulam Ali Allana, Abdullah Waryah, Babar Soomro, Pyar Ali Allana, Begum Mumtaz Rashdi, Razak Soomro, Asif Ali Razak Soomro, Dr. Rashid Shah, Nilofer Sheikh, Mukhtiar Kazi, Muhammad Lund, Mohammad Taj Sahrai, Stanley A. Schumm, Michael D. Harvey, Raymond Woodhead, Bill and Cecilie Jones, Larry Grahl, and Richard and Isabella Von Glatz.

I wish to acknowledge the personal interest and patronage of the former President of Pakistan, Zia ul-Haq. Without his interest and assistance the Ghazi Shah excavations would never have occurred. Dr. Mohammad Afzal, former federal Minister of Education, provided the Project with a final push to get it started, and I thank him for his interest and concern. The Project has also benefited these many years from the co-operation and assistance provided by the Department of Archaeology, Government of Pakistan: M. Ishtiaq Khan (former D.G.), Dr. Ahmed Nabi Khan (present D.G.), Dr. M. Rafique Mughal, our site representative Mazhar Ali, Asma Ibrahim, Qasid A. Qasim, and all the officers and staff.

The Sindh Archaeological Project and Ghazi Shah excavations were funded by the Smithsonian Institution, the U.S. National Science Foundation, the American Institute of Pakistan Studies, and most importantly, by the Fulbright Research Scholar Program (Council for International Exchange of Scholars and the U.S. Information Agency). Many, many thanks are due to the former Directors of the United States Educational Foundation in Pakistan, Charles Boewe and Bruce Lohof, and the present Director Peter Dodd, and the anonymous board in Islamabad for supporting my research.

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7

Palaeolithic industry of the Chotanagpur plateau of Bihar and its adjoining highlands of Orissa : the evidence from Hazaribagh, Singhbhum and Mayurbhanj

Rupendra Kumar Chattopadhyay

Introduction

The region under study forms one of the major land masses of the Indian subcontinent. It is not only that this high plateau land is physiographically unique in character but it also harbours one of the largest concentrations of tribal population in the country. In order to reconstruct a generalized cultural history for the region, the present author has from time to time undertaken extensive explorations of the stone age sites in the whole area. The author has elsewhere attempted a synthesis of the Palaeolithic cultural pattern of those segments of the eastern fringe of Chotanagpur plateau which fall in West Bengal.[1] In the course of carrying out archaeological survey of the region, the author has repeatedly felt that the districts of Hazaribagh, Singhbhum and Mayurbhanj (Fig. 1) in particular present the most characteristic evidence of Palaeolithic cultures and hence can be taken as representing a core area of the Chotanagpur plateau and its adjoining highland of Orissa.

The role of the region comprising Hazaribagh, Singhbhum and Mayurbhanj in understanding the Palaeolithic culture of this country is particularly significant because of two main reasons. First, this area provides a gradation of height as one proceeds from Ranchi (which represents the highest point of elevation in the region) towards both north and south. Till the end of the last century, the area was entirely forested and maintained a variegated faunal wealth. Second, from the point of view of our study the evidence of Palaeolithic artefacts discovered so far from these districts is so large in quantity and also in variety that it can well be taken to represent the entire area. From the geomorphological point of view the districts considered here are chosen from high to low as one progresses from Ranchi towards south-southeast. While the coastal climate derived from the Baleswar region has cyclonic effects in some parts of the region, areas like Hazaribagh, on the other hand, are more related to the climatic regimes of the Middle Ganga valley. Further, different parts of the region are drained by various river systems resulting in the development of different adaptational and hence cultural zones.

Formed by repeated upward thrusts followed by erosion from the Cretaceous period onwards, the area is characterized by Archaean granite and gneiss rocks with patches of Dharwar schists. Laterization of these trap rocks is so common that most Indians refer to

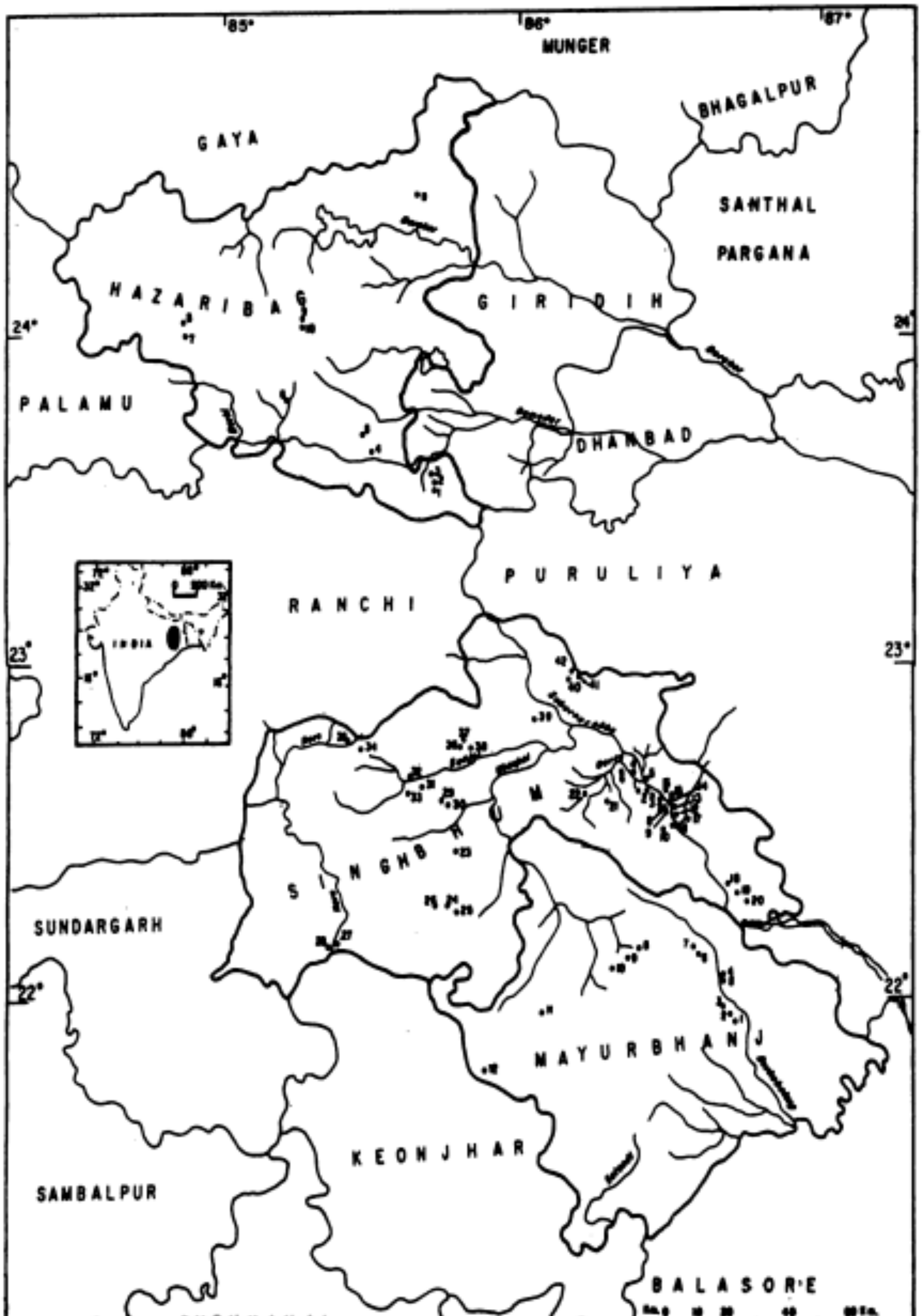

Fig. 1. Map showing the distribution of Palaeolithic sites in Districts Hazaribagh, Singhbhum & Mayurbhanj

this region as that of red rocks. At some places, the thickness of this compact detritus is as much as 3-4 m. while at others it does not go beyond 1 m. Being basically sub-tropical in climate the forest cover maintains both broad-leaf perennial as also some varieties of tropical deciduous plants. In average rainfall the whole region does not experience more than 150 cm. per annum. However, on Orissa coast, being an area of repeated formation of depression, cyclonic wind often maintains a drizzle even up to the months of November-December.

Prehistoric investigation in this area started as early as 1865,[2] but the early reports did not go beyond recording evidence of antiquities of different periods. The first thorough prehistoric investigations of the region were undertaken by the Department of Anthropology, University of Calcutta[3] only in the middle of the present century. These investigations provide us with details of the antiquities of the Palaeolithic period, their geological context as also their cultural features. The Archaeology and Museum Unit, Department of History, Delhi University (henceforth referred to as ADU in this paper), has also been carrying on extensive surveys of the entire Chotanagpur region since 1982. The present author, who participated in all these field investigations under the leadership of Dilip K. Chakrabarti, has on earlier occasions published jointly results of these surveys district-wise.[4] The objective of the present paper, however, is not limited to merely reporting the Palaeolithic sites and recording the material retrieved from these sites. It intends to go a step further and consider the typo-technological parameters of Palaeolithic artefacts in order to arrive at certain generalizations regarding the cultural pattern of the region.

Hazaribagh

The district[5] lies between 23°25′ and 24°48′ N. and 84°29′ and 86°38′ E. It is situated in the north-eastern portion of the Chotanagpur plateau. It is bounded by Districts Gaya and Monghyr in the north, Santhal Parganas and Dhanbad in the east, Ranchi in the south and Palamau and Gaya in the west. In recent years Giridih, which earlier formed the eastern section of Hazaribagh, has been elevated to the status of a new and full-fledged district. Physiographically the district is divisible in three parts. The central part which is also the highest plateau (approx 600 m.) maintains the main Hazaribagh township. The lower plateau lies in the northern parts of the district and has a height of nearly 400 m. Along the southern part of the district flows the river Damodar, and in average this section lies almost about 300 m. lower than the Hazaribagh town. The Murang Bura hill lies south of the Damodar valley between Hazaribagh and Ranchi districts. In average the Murang Bura hill is about 1100 m. high. The Damodar is the principal drainage system of the district and maintains a large number of tributaries, spreading out all over the district. The famous Rajrappa falls is situated near the confluence of the Bhera and the Damodar. The other important rivers are the Morban, Lilajan, Tilaiya and Sakri. Till the end of the last century almost the entire district was covered by thick forest of *śāl*, *khair*, *śimul*, *palāś*, *kend*, *bhelwa* and bamboo.

The earliest report of a Palaeolithic find in this area was made by Hughes in the Bokaro region (which was then included in the Hazaribagh district) in 1865.[6] It was nearly after a full century that a substantial collection from this district was made again by A.K. Ghosh.[7] The reported palaeoliths were collected from the river bank and adjoining open-air surface localities near Ramgarh. Ghosh claimed that many of his finds had occurred in a gravel bed and were *in situ* in context. The retrieved antiquities comprised mainly choppers and scrapers. K.P. Jaiswal Research Institute of Patna[8] had surveyed the Rajrappa region and reported a Palaeolithic occurrence.

The present collection of palaeoliths was made under the auspices of ADU during its investigations in March-April 1986. A thorough survey of the district for Palaeolithic occurrence was completed and reported subsequently.[9] The largest number of sites were recorded in the Ramgarh-Rajrappa area which is drained by the Damodar and its tributaries. The hilly and undulated tracts of Barkagaon-Simaria section and the Barhee-Kodarma section yielded the other sites. These sites may be described in brief as follows.

1. **Gola (GLA): Lat. 23°30′ 05″ N.; Long. 85°44′ 55″ E.**

About 5 km. from village Gola along the Jhalda-Gola road exists an undulated rocky upland. A number of whitish quartz raw materials can be seen scattered over the entire region. This surface yielded a flake core, some flakes and 2 retouched into side scrapers. The abundance of raw material would indicate that this might have been a temporary camping site of a wandering Palaeolithic band.

2. **Kusumdih (KSD): Lat. 23°32′ N.; Long. 85°43′ 45″ E.**

The site is situated at a distance of nearly 2 km. from the Rajrappa temple towards Gola road. A road cuts across a wide gravelly and sloping detritus lateritic tract. At places there are heavy erosional exposures visible on this surface. A closer look at these gullies indicates a succession of bed rock (at places decomposed and gritty), which, in turn, is superimposed by the lateritic spread which is implementiferous. The palaeoliths collected from this site constitute the richest assemblage in the entire district. Basides a large number of cores and flakes, the collection includes 8 chopper/chopping tools, 1 handaxe, 44 side scrapers, 4 borers and 4 points.

3. **Bansgarha (BNS): Lat. 23°32′ 15″ N.; Long. 85°43′ 35′ E.**

This is about 4 km. from Kusumdih on the Gola-Rajrappa road. Like Kusumdih here also erosional gullies expose a decomposed bed rock superimposed by laterite. Tools were collected from these laterite deposits. Besides some flakes, a chopping tool, a handaxe, a cleaver and a side scraper form the collection.

4. **Hisagarha (HSG): Lat. 23°45′ 05″ N.; Long. 85°30′ 05″ E.**

Nearly 6 km. from Ramgarh on the Ramgarh-Hazaribagh road one can see a large lateritic outcrop scattered with chunks of crystalline quartz. The whole area is disturbed by private quarrying being done for quartz. Four side scrapers could be collected from this site.

5. **Mandu (MND): Lat. 23°47′ N.; Long. 85°29′ 20″ E.**

This would seem to be an extension of the Hisagarha topography and is only a few km. away from the earlier site. At places the exposed gullies here show a decomposed conglomerate spread underlying the lateritic deposit. Some Upper Palaeolithic blades and also types prepared on them were collected.

6. **Barkagaon (BKG): Lat. 23°51′40″ N.; Long. 85°14′ E.**

The road going to Simaria from Hazaribagh *via* Barkagaon and Tandwa is cut across a deeply-forested region. One can see a vast stretch of undulated and eroded tract on the side of the road as one comes down from the hills and approaches the village Barkagaon. A seasonal flow has cut through the depositions in the form of rain gullies and one can see the succession. The bed rock is followed by a deposit of sandy yellow mottled clay. This is finally capped by a thick red and denuded lateritic deposit. The laterites found at this site are mixed with lime nodules and grit. The tools have been collected from this top deposit and contain 2 medium-size handaxes and 6 side scrapers besides some flakes.

7. **Pundra (PND): Lat. 24°03′ 05″ N.; Long. 85°58′ E.**

The site is about 3·5 km. from Simaria on Hazaribagh-Tutilawa-Simaria road. The site is an open-air spread littered with an outcrop of quartz nodules. Only two specimens of Lower Palaeolithic period could be collected from this site. One of this is a medium-size flake handaxe.

8. **Paradih (PRD): Lat. 24°11′ 55″ N.; Long. 84°51′ 30″ E.**

It is located 6 km. from Chatra towards Simaria *via* Bagra. The context of the site is almost identical with that of Pundra described earlier. Two good handaxes could be collected from open surface littered with quartz nodules.

9. **Karso (KSO): Lat. 24°17′ N.; Long. 85°25′ E.**

It is situated at a distance of about 4 km. from Barhee on the Hazaribagh-Barhee road. The site is a vast undulating open-air surface with quartz nodules scattered all over. One handaxe and 2 side scrapers were picked up from the surface.

10. **Bonga (BNG): Lat. 24°02′ N.; Long. 85°24′ E.**

Situated along the same road the site is about 9 km. from Hazaribagh city limits. The context of the finds in this site, like the earlier ones, is open-air surface. One handaxe and a flake core could be collected from here.

11. **Neropahar (NPR): Lat. 24°28′ 10″ N.; Long. 85°40′ 20″ E.**

This is another site with almost identical physiography. It is located at the north-eastern part of the district lying at a distance of about 5 km. from Domechanch. Only a medium-size side scraper could be collected from here.

The survey conducted in Hazaribagh clearly demonstrates that while Kusumdih reveals concentrated activity recorded within a geological context, the rest of the sites have either derived material or simple records of temporary spread of the population. The retrieved antiquities of Kusumdih also enable us to make certain broad generalizations about the cultural status of Palaeolithic in Hazaribagh. Table 1 shows the typological distribution of 11 sites recorded here. While the whole district yielded 127 specimens, Kusumdih alone contains more than 2/3rd of the total (90 specimens).

The Middle and Upper Palaeolithic tools recovered are not many and have not exceeded 13 specimens in any site (Tables 2 and 3). Barkagaon (BKG) yielded the largest (total no. 10) Middle Palaeolithic collection in this district. And the most important point is that there is no stratigraphic separation between the Lower, Middle and Upper Palaeolithic periods. Thus, as far as this district is concerned the division of Palaeolithic period into three stages is only typo-technologically identified.

Singhbhum

The district[10] is located between 21°58′ and 23°36′ N. and 85°0′ and 86°54′ E. This forms the south-eastern part of Chotanagpur plateau. Its northern border is formed by District Ranchi of Bihar and District Purulia of West Bengal. On the eastern border lies District Midnapur of West Bengal and in the southern border lie Keonjhar and Mayurbhanj districts of Orissa. The western border of Singhbhum is bounded by Ranchi and Sundargarh districts. Singhbhum is normally divided into four sub-divisions: (i) Saraikela and Kharswan (northern), (ii) Kolhan (central and southern), (iii) Dhalbhum (eastern) and (iv) Porahat and Saranda (western). The whole district predominantly comprises hilly upland tract. There are hills alternating with valleys, steep mountains with thick forest cover on their slopes and river basins forming comparatively flat undulating countryside. The central part of the district is an upland plateau stretching from the Subarnarekha valley (in the east) to the hills near Chaibasa (in the west). Towards the north-west the maximum altitude of the ranges in the district has been recorded as about 762 m. The ranges in the south-west occupy an area usually referred to as the Saranda *Pir*. The other minor hill ranges are located in Saraikela and Kharswan regions besides the Dalma ranges lying towards the south of Dhalbhum. The principal rivers of the district are the Subarnarekha and the Koel; the former rises in the Ranchi district and enters Singhbhum from the north-west. The lower plateau of the district is drained by this river and its tributaries, the Garranadi and the Dudhnadi. The Koel and its tributaries, like the Karo, the Roro and others, flow in the western part of the district, while the river Sanjai and its tributaries cover a large tract in the northern part of the district. The Baitarani, one of the principal rivers of Orissa, also touches a short stretch of Singhbhum towards its southern border.

The vegetation cover of Singhbhum consists of deciduous forests containing *śāl*, *kusum*, *asan*, *mahuā*, *palāś*, etc. The district is extremely rich in mineral resources. The principal minerals are iron, copper, limestone, jasper, gold and uranium. Naturally, the attention of the geologists was attracted towards the region from a very early date. Cultural relics, of the Pleistocene period as such, got recorded from this district from a very early date.

In 1868 Capt. Beeching[11] recorded few chert flakes from Chaibasa. This was confirmed by V. Ball.[12] In the subsequent years he added many other palaeoliths from this region after further explorations.[13] C.W. Anderson[14] collected palaeoliths as also neoliths from the Sanjai and its tributaries. Further, he also attempted to ascribe a firm stratigraphic context to these finds by reporting the alluvial successions of the Binjai and the Sanjai near Chakradharpur. His palaeoliths include scrapers, discoidal choppers, handaxes, cleavers and knives and points—the latter probably belonging to Middle or Upper Palaeolithic phase.[15] The work of P. Mitra[16] includes a similarly rich Lower Palaeolithic collection from another tributary of the Subarnarekha. In 1941, E.F.O. Murray[17] reported some more palaeoliths from the district, but no further details were provided. From June 1950 to August 1951 S.C. Sinha[18] discovered 32 specimens of palaeoliths as well as some neoliths during the course of a field work in Cultural Anthropology among the Bhumij population in the Nimdih area of northern Singhbhum. This collection was studied in greater detail with typo-technological analysis by D. Sen and others.[19] Meanwhile A.K. Ghosh[20] summarised prehistoric findings of eastern India as well as his findings from the district of Singhbhum. A detailed study of the Palaeolithic culture of Singhbhum was also made by A.K. Ghosh in 1970.[21] The work describes in great detail the geo-stratigraphy of the entire district and also makes an analysis of the rich Palaeolithic collection made by him. From 1963 onwards Ghosh surveyed the area repeatedly and published additional discoveries and their geo-stratigraphic contexts. In all 40 Palaeolithic sites from the district were discovered by him. In 1976-78, S. R. Roy[22] of the Department of Archaeology and Museum, Government of Bihar, surveyed some sections of the Subarnarekha and the Bamni near Chandil and reported numerous other Palaeolithic sites. These are Bhalukocha, Gangudih, Sasantand, Pathardih and Puaputul. The specimens described include handaxes, cleavers, scrapers and points made on quartzite. It was nearly after a decade that ADU[23] conducted a field survey in this district in March 1984. The investigation yielded a rich assemblage of antiquities belonging to several periods. The present author, as a co-investigator of the ADU field trip, discovered several Palaeolithic occurrences in addition to microliths and neoliths and also recorded several old mining shafts as well as other historic sites. In December 1988 the author revisited the Rakha-Ghatsila region and collected some more Palaeolithic material from this region. In all 42 Palaeolithic sites were recorded from the entire district. Among these the sites of Galudih and Kharsati Bridge have been surveyed in 1988.

The distribution of the sites in the district also demonstrates a kind of pattern. For instance, 19 sites are recorded from the tract between Rakha-Ghatsila along the Subarnarekha and its tributaries like the Garranadi, Dudhnadi and Kharsati; 3 sites are from the undulating detrital lateritic deposit lying between Baharagora and Ghatsila; 4 sites are from the hilly and undulated tract around Hat Gamharia; 2 sites are found on the bank of the river Karo in the hilly and forested upland Nawamundi-Gua; 7 sites are recorded from the uneven hilly tracts of Chaibasa-Chakradharpur area; 3 sites are recorded from the Saraikela-Lapso-Kyanite mining complex and the other 4 sites occur in the detrital laterites from Kendra-Chandil area. All the sites described are either hill-slopes or undulated and eroded detrital lateritic surfaces as well as the erosional river banks/beds. Following are the brief features of the Palaeolithic sites discovered from the district.

1. **Rakha Copper Project (RCP): Lat. 22°40′10″ N.; Long. 86°21′10″ E.**

The site is in the vicinity of the Rakha Copper Complex of the Hindustan Copper Ltd. The findspot lies near a hill slope which is highly disturbed by modern quarries and other project works. From the slope a few flakes and a side scraper could be collected.

2. **Barapahar (BRP): Lat. 22°41′ N.; Long. 86°21′15″ E.**

It is a small locality close to the smelting factory of the Rakha Copper Project. A flat open land with rocky outcrop occurs around the factory. This is basically covered with a thick deposit of a reddish clay or alluvium. This deposit has been extensively cut into by cultivated lands. Cultivation has removed the clay cover and exposed tools occurring in the underlying rocky/gravelly deposits. At some places palaeoliths could be observed *in situ* within this gravelly deposit. The palaeoliths recorded include 2 handaxes and 2 side scrapers. Besides these, several microliths could also be collected from the surface.

3. **Ruam-Digri (RDG): Lat. 22°40′15″ N.; Long. 86°21′15″ E.**

The area is generally covered with scrub bushes but there are also some rocky patches exposed at some places. Ruam and Digri are two localities situated near the confluence of the Subarnarekha with the Garranadi. The rocky patches stretch over these two localities and yield both palaeoliths and microliths from the surface. The palaeoliths collected include 6 handaxes and 1 cleaver besides a few retouched flakes.

4. **Garranadi Dam (GND): Lat. 22°39′40″ N.; Long. 86°22′ E.**

The site is situated near the mouth of the dam towards downstream at Jadugora. The river cliff at this place exposes a 3-5 m. thick sandy clay deposit overlying directly on the bed rock. The artefacts are collected from the bank and are apparently derived from this clay deposit. The palaeoliths collected were rich in such finished types as chopper/chopping (3), handaxes (5), cleavers (4) and side scrapers (2).

5. **Saspur (SSP): Lat. 22°39′30″ N.; Long. 86°22′ E.**

The site lies 1·5 km. downstream from the dam site mentioned above. Here a large expanse of a gravelly upland is exposed and a rich collection of Lower palaeoliths could be made from this open-air surface. These include 4 chopper/chopping tools and 9 handaxes.

6. **Rajdoha (RJD): Lat. 22°41′10″ N.; Long. 86°20″ E.**

The Garranadi comes out of a gorge near Rajdoha. The hill slopes at this point yielded both palaeoliths and microliths. The palaeoliths recorded comprise 3 handaxes, 3 cleavers and 4 side scrapers.

7. **Chakuria (CKR): Lat. 22°35′15″ N.; Long. 86°22′15″ E.**

This is about 7 km. from Rakha on the Rakha-Musabani road. A slightly-raised expanse of a detrital lateritic bed is exposed at the site. Six handaxes along with some bladish flakes were picked up from here.

8. **Serenga (SRN): Lat. 22°35′20″ N.; Long. 86°23′ E.**

This is another site lying along the Rakha-Musabani road, and is about 10 km. from Rakha mines. One handaxe and 2 cleavers could be collected from the eroded lateritic bed exposed.

9. **Terga (TRG): Lat. 22°35′25″ N.; Long. 86°23′10″ E.**

It is the same detrital lateritic stretch continuing from the Chakuria-Serenga area. Four handaxes and 3 side scrapers were collected from this deposit from almost *in situ* context. Some Middle palaeoliths also could be collected from the upper erosional surface.

10. **Musabani-Maubhandar Crossing (MMC): Lat. 22°34′N.; Long. 86°23′35″ E.**

The Rakha-Musabani road is bifurcated at this point. The bifurcation leads to Maubhandar towards the main course of the Subarnarekha. There is a large gravelly stretch exposed at this crossing on the left side of the road. A very few palaeoliths were collected from the eroded surface of this bed. These include only 1 handaxe as a finished tool type.

11. **Beneshol (BNS): Lat. 22°37′ N.; Long. 86°24′ E.**

The site is close to the Subarnarekha and lies about 2 km. from the above site. A few Lower palaeoliths, including 1 handaxe as the only finished type, were collected from the open-air exposed detrital bed.

12. **Ful-Dungri (FLD): Lat. 22°35′25″ N.; Long. 86°27′15″ E.**

There is a rocky patch near the point where the road to Ghatsila branches off the National Highway. Two Lower Palaeolithic side scrapers could be collected from the eroded open-air surface of a detrital bed here.

13. **Kitadi-Dungri (KTD): Lat. 22°35′30″ N.; Long. 86°27′15″ E.**

About 4 km. from Ghatsila towards Jamshedpur on the left hand of the National Highway the characteristic eroded lateritic bench is exposed. Two very well-finished handaxes were collected from here. An area of almost 2 sq. km. of this lateritic exposure here is littered with flake cores and other Palaeolithic waste material. At places the detritus which is eroded one can see an underlying cemented gravel.

14. **Bichhati-Dungri (BCD): Lat. 22°38′ N.; Long. 86°23′15″ E.**

This is an extension of the Kitadi-Dungri stretch and lies at about a few km. distance. Here the lateritic bed lies at the base of a hilly slope. One handaxe and a cleaver were collected from here.

15. **Galudih (GLD): Lat. 22°39′5″ N.; Long. 86°23′20″ E.**

On the left side of the National Highway to Jamshedpur one can see a large stretch of denuded hills ranging roughly from 200-400 m. in height. The base of the hill extending up to the highway is littered with Palaeolithic debitage and finished tools. Apparently the highway was constructed through the site as one can see the same material lying across the road as well. A. K. Ghosh[24] records a very good collection of palaeoliths from this site. The present author could collect 7 handaxes, 2 cleavers and 41 side scrapers besides numerous flakes and flake cores from this site.

16. Uldah (ULD): Lat. 22°39′20″ N.; Long. 86°23′5″ E.

It is situated on the left bank of the Subarnarekha almost opposite to the place of its confluence with the Garranadi. The bank here shows the exposed and eroded gravel bed. Three handaxes and 2 cleavers were collected from this eroded surface. Microliths are also seen on this surface.

17. Kharsati Bridge (KSB): Lat. 22°33′ N.; Long. 86°31′15″ E.

The site is located on the left bank of the Kharsati near a bridge on the National Highway. It is about 3 km. from Ghatsila. The site was extensively surveyed by the present author in 1988. The surface, basically a recent alluvium, was scattered with microliths and Palaeolithic debitage. From the eroded rain-gullies a collection of 8 handaxes, 1 cleaver and 2 side scrapers was made. Besides this, a few microliths and neoliths were also collected from the site.

18. Mahispur (MHP): Lat. 22°17′10″ N.; Long. 86°44′ E.

About 5 km. from Baharagora towards Ghatsila on the National Highway there is a patch of detrital lateritic stretch exposed. Two handaxes and a side scraper were collected from this exposure.

19. Patbera (PTB): Lat. 22°17′05″ N.; Long. 86°44′05″ E.

It lies around 2 km. from Baharagora on the same Highway. The characteristic lateritic stretch at this site yielded 3 handaxes and 1 cleaver.

20. Charakmara (CKM): Lat. 22°17′ N.; Long. 86°44′10″ E.

The site is situated near the Baharagora crossing lying towards the village Charakmara. Two Lower Palaeolithic side scrapers were collected from the surface of a rocky outcrop exposed at this site.

21. Kalikapur (KLK): Lat. 22°37′15″ N.; Long. 86°18′30″ E.

The village is located on the Rakha-Chaibasa road and is about 14 km. from Rakha. There is a small river named Dudhnadi which cuts across this area. The cliff exposed here shows a thick clay deposit underlain by a gravel deposit. Some Lower palaeoliths were collected from the exposed gravel deposition in addition to a few Upper palaeoliths recorded from the loose sandy soil.

22. Kamalpur (KMP): Lat. 22°37′10″ N.; Long. 86°15′15″ E.

Along the same road at a distance of about 3 km. from the previous site the road crosses the Garranadi. Near the bridge there is a clear river section which shows a deposit of about 3 m. of clay. A cemented gravel layer of about 1·20 m. thickness lies directly under this clay deposition. A handaxe and 4 side scrapers were collected from eroded sections of this gravel deposit.

23. Hat Gamharia-1 (HGM-I): Lat. 22°20′30″ N.; Long. 85°47′15″ E.

The site is located on the Chaibasa-Hat Gamharia road and is about 10 km. from Chaibasa. A single specimen of an Abbevillian handaxe was collected from the hill slope.

24. Hat Gamharia-2 (HGM-II): Lat. 22°20′30″ N.; Long. 85°45′05″ E.

This is also on the same road, about 2 km. north of Hat Gamharia market place. An undulating and eroded surface yielded 1 handaxe and 1 side scraper at this site.

25. Hat Gamharia-3 (HGM-III): Lat. 22°15′05″ N.; Long. 85°44′45″ E.

The site is on the extended hill slope lying west of the Kendposi Railway Station. The slope is basically a deposition of mottled clay and a detrital lateritic gravel. A handaxe was discovered *in situ* from the junction of the gravelly bed and mottled clay. Some Middle Palaeolithic flakes were collected from the eroded surface.

26. Hat Gamharia-4 (HGM-IV): Lat. 22°19′15″ N.; Long. 85°45′ E.

The occurrence of palaeoliths was noticed on an exposed lateritic gravel bed located at about 2 km. away from Hat Gamharia on the Benisagar road.

27. Sashaghati (SSG): Lat. 22°11′05″ N.; Long. 85°24′ E.

The site is located near a bridge on the Nawamundi-Gua road on the river Karo. There is an exposed cemented gravel located on the river cliff as well as on the bed. The eroded surface of this bed yielded 2 handaxes and a side scraper in addition to some Middle Palaeolithic flakes.

28. Tatibe (TTB): Lat. 22°10′15″ N.; Long. 85°23′45″ E.

The site is 3 km. from the Saranda forest checkpost on the Nawamundi-Gua road. Here, the find-spot is also on the exposed cemented gravel surface located on the river Karo. One handaxe, 1 cleaver and 1 side scraper were collected from here.

29. Ghuntia (GHN): Lat. 22°33′05″ N.; Long. 85°45′48″ E.

About 6 km. north-west of Chaibasa an expanse of eroded surface lies exposed. One handaxe and 1 side scraper were collected from this surface.

30. **Karalajuri (KLJ): Lat. 22°33′45″ N.; Long. 85°45′35″ E.**

The occurrence of Middle palaeoliths was noticed on a hill slope located on the Chaibasa-Chakradharpur road about 5 km. from Chaibasa.

31. **Chakradharpur-1 (CKP-I): Lat. 22°36′10″ N.; Long. 85°43′32″ E.**

About 16 km. from Chaibasa on the Chaibasa-Chakradharpur road occurs the site. One handaxe and 1 cleaver were collected from here.

32. **Chakradharpur-2 (CKP-II): Lat. 22°37′05″ N.; Long. 85°42′35″ E.**

There is a hill slope near a bridge on the river Sanjai, a few km. from the Chakradharpur town. Lower and Middle palaeoliths have been collected from an eroded surface near the river bank.

33. **Chakradharpur-3 (CKP-III): Lat. 22°37′ N.; Long. 85°42′25″ E.**

The *in situ* occurrence of a lone Lower palaeolith was recorded from a lateritic bed in the locality of Ulighutu within the Chakradharpur area. The site lies within a forested tract.

34. **Tebo (TBO): Lat. 22°46′48″ N.; Long. 85°23′42″ E.**

The locality lies on the top of a hilly range on the Chakradharpur-Ranchi road and is about 34 km. from Chakradharpur. There is a rocky outstretch ploughed up for seasonal cultivation. Five handaxes and 1 side scraper were found from this ploughed field.

35. **Hesadih (HSD): Lat. 22°46′55″ N.; Long. 85°23′05″ E.**

A few km. beyond Tebo on the same route there is a broken terrain below the Inspection Bungalow. Some Lower Palaeolithic debitage along with a side scraper were collected from this surface.

36. **Lepso-Kyanite (LPK): Lat. 22°46′35″ N.; Long. 85°47′15″ E.**

The find-spot is a hill slope located almost immediately outside the Lepso-Kyanite mining administrative complex gate. The surface is highly eroded at places and yielded a collection of 4 handaxes and 1 side scraper besides some microliths.

37. **Jajadih (JJD): Lat. 22°46′30″ N.; Long. 85°47′05″ E.**

It is about 4 km. east of Lepso-Kyanite mining complex. Here one can see an elevated land surface littered with chunks of stone. The surface on this area yielded 1 handaxe and 1 side scraper.

38. **Barudih (BRD): Lat. 22°45′35″ N.; Long. 85°57′45″ E.**

It is an already reported Palaeolithic site as also Neolithic site. The palaeoliths are found *in situ* in the gravel deposition of the Sanjai river exposed near the cliff. The tract along the course of the Sanjai are scattered with Palaeolithic debitage. Four chopper/chopping tools and 1 handaxe were collected by the present author from the erosional surface of this tract.

39. **Kendra (KND): Lat. 22°47'20" N.; Long. 86°02' E.**

This is an open stretch of detrital lateritic tract near a forested hilly area. It is situated about 5 km. away from Kendra on the Kendra-Chandil road. The eroded surface yielded 3 handaxes and 1 side scraper.

40. **Purnapani (PNP): Lat. 22°59'35" N.; Long. 86°8'21" E.**

About 2 km. south-east of Nimdih a large lateritic tract is exposed. At the site a small local stream cuts through this hard pan. Four handaxes, 1 cleaver and 1 side scraper were collected from the river-bed and the adjoining lateritic surface.

41. **Bamni (BMN): Lat. 22°59'35" N.; Long. 86°8'25" E.**

It is an adjoining village and lies a few km. east of Purnapani. The same detrital bed is extended up to this area. Lower palaeoliths were collected from the eroded lateritic bed at this site. The collection includes 3 handaxes, 2 cleavers and some flakes and cores.

42. **Dungdungri (DND): Lat. 22°59'45" N.; Long. 86°8'15" E.**

The site lies in the bordering region of Bihar with West Bengal, and is about 1 km. from Raghunathpur. Only 1 cleaver was collected from an eroded lateritic bed.

On the basis of the above sitewise report it is clear that the Palaeolithic artefacts are found to be occurring mainly either on detrital lateritic bed or the cemented gravel bed. The former bed which has the maxium number of sites, has been traced from the entire localities of Rakha, Ghatsila, Baharagora, Hat Gamharia, Chakradharpur, Kharswan and Chandil, whereas the latter bed has been noticed at the sites of KMP on the Garranadi and SSG and TTB on the Karo river. It is worth-mentioning here that the detrital lateritic gravel bed at Ulighutu (CKP-III, Site No. 33) yielded the *in situ* collection of a large Abbevillian handaxe and no other specimen has been recorded from the site. Hence it can be counted as a stray occurrence. The total number of Lower Palaeolithic tools collected from these 42 sites representing the district is 316. Tables 4a & 4b show their sitewise and typewise distribution.

Like Hazaribagh, Singhbhum also does not show a very marked stratigraphic distinction of the Middle Palaeolithic from the preceding stage. Therefore it is not very easy to form a clear and complete picture of this cultural stage in most of the sites. However, at least at 16 (Table 5) sites of the 42 surveyed Middle Palaeolithic appears identifiable because of either some characteristic types or slightly varying stratigraphic context. A total of 63 specimens of Middle Palaeolithic stage have been collected. Upper palaeoliths of Singhbhum, however, are entirely isolated on the basis of typo-technology. Only 5 sites yielded these Upper Palaeolithic types. A total of only 10 specimens were collected. Table 6 shows the distribution.of the various types in these 5 sites.

To sum up, one can say that Singhbhum is far better represented in its Palaeolithic record than Hazaribagh. Further, the absence of a break in the raw material used for all the three stages would seem to indicate an isolated and independent occupation of Singhbhum during the Palaeolithic stage.

Mayurbhanj

The district[25] lies at the north-eastern corner of the State of Orissa. It is located between Lat. 21°16′ and 22°34′ N. and between Long. 85°45′ and 87°11′ E. It is bound in the south by the districts of Keonjhar and Balasore of the same State whereas in the north by the districts of Midnapur of West Bengal and Singhbhum of Bihar. It is counted as a part of highland of Orissa[26] in a geographical sense but in its land formation and natural geomorphology the entire hilly part of the district is purely an extension of the Chotanagpur plateau (south-eastern limit).

The central part of the district[27] is covered with a hilly tract which divides into two branches, one running to the north towards Singhbhum, while the other divides the district into undulating flat land towards the sea and the hard lateritic rocks in the west. The physical character of Mayurbhanj is mainly influenced by these hills which separate the district into three natural divisions: (i) the eastern part comprises Sadar and subdivision of Kaplipada, (ii) the north-western part contains Bamanghaty subdivision and (iii) the south-western part comprising the subdivision of Panchpur. The eastern division slopes gently from the foot of the hills towards the coastal area and is drained by innumerable hill-streams. The other two parts are mainly uneven or undulating plains covered by segments of hills, with rocky and lateritic surfaces with hilly streams cutting across the terrain. The district has two main rivers, the Burhabalang and the Salandi. Both these rivers rise from the local hills and are joined by a number of hilly streams before they descend to the plains. For a short distance the river Baitarani flows along the western border of the district. The large areas of the district are covered with a red soil derived from the lateritic beds. The forest cover mostly includes such semi-evergreen species as *śāl*, *piāśāl*, *śiśu*, *kusum*, *bandhan*, *gambhari*, *kendu*, *mahuā* and *asan*. Wild life includes both elephants and tigers besides a large variety of herbivores. Apart from these, the river Burhabalang maintains a rich crocodile population in its middle and lower reaches.

The geological studies indicate that the Tertiary outcrops of limestone, ferruginous grits and clay are exposed along the course of the Burhabalang. Lateritic cappings are common in the Similipal ridges. The Baripada plain is largely covered by laterite and alluvium through which rocks of Archaean age jut out at places. The mineral deposits recorded from the district are iron ores, titaniferous vanadiferous magnetites, kyanite, steatite, white clay and alluvial gold in very small quantity.[28]

V. Ball[29] earned the distinction of being the first to discover the remains of Palaeolithic culture of Orissa. He made the discoveries in 1876 from localities in the districts of Dhenkanal, Angul, Talcher and Sambalpur. Palaeolithic occurrence in Mayurbhanj was first mentioned in 1930 by R. D. Banerji.[30] Banerji mentioned that both palaeoliths and neoliths were found from Baidipur. Engens C. Worman Jr. and P. Acharya surveyed several localities in the district during 1939.[31] About their discoveries Worman writes: 'There is some of the finest lot of Palaeoliths in Mayurbhanj that I have seen anywhere...found about 6 new Palaeolithic sites around Baripada and on the road leading North-West from it to Rairangpur... Name of place is Kuliana, 10 miles from Baripada.'[32]

A systematic field investigation on Palaeolithic Mayurbhanj was undertaken by the Department of Anthropology, University of Calcutta, when N.K. Bose and D. Sen visited Kuliana in 1939.[33] Full-fledged field-work was carried out at this site from December 1939 to January 1942, during which few trenches were also dug. Besides this, several other sites lying within 7 km. radius of Kuliana were also explored. The Palaeolithic sites recorded are Kalabaria, Koilusuta, Nuaberi, Pratappur, Kendudiha, Sandim, Brahangaon, Buramara, Patinga, Pariakoli Kamta, Bhuasuni and Mundabani. The basic geo-stratigraphy recorded by them is a primary lateritic bed overlain by secondary lateritic gravels of a variable thickness and finally this is overlain by a thin layer of superficial clay. It is interesting to note that the river Burhabalang flows nearly three-fourth of a mile to the west of the excavated pit at Kuliana. The Palaeolithic artefacts occur in the lateritic gravel pits and on the surface which are in turn more or less derived from the pits. A few specimens were also found from gravel bed of the Burhabalang as well as the dry pebble beds of the adjoining streamlets. They made a detailed study of the occurrence of Kuliana, Quarry 'C' where they observed a bed of boulder conglomerate of unknown thickness. From Kuliana and the other adjoining sites several hundred Lower palaeoliths were collected. These include choppers, handaxes, cleavers, scrapers and other types of core and flake tools. During the period of 1948-50 D. Sen and G. S. Ray[34] further explored the district and reported additional Palaeolithic sites. Subsequently, in 1951 and again in 1958, Bose, Sen and Ray[35] carried out a field investigation on geological and cultural evidence of the Stone Age in Mayurbhanj. The last publication makes significant contribution towards understanding the palaeo-climatic succession in this region. Finally, A. K. Ghosh[36] offered a fresh analysis of the Mayurbhanj material at the University of Calcutta and fresh collections were made by him. Ghosh[37] also observed that within a radius of 10 km. from Kuliana and spread along both banks of the Burhabalang the same physiographical and cultural characters occur as a single unit. There are some other works carried out in this region subsequently.[38] These works yielded more sites of Palaeolithic period.Vol. I of the *Utkal University History of Orissa* records a comprehensive list[39] of prehistoric sites of Orissa. The list includes 29 Lower Palaeolithic and 9 Middle Palaeolithic sites in Mayurbhanj.

Most of these sites are located around Kuliana and are studied by Bose and Sen in a series of studies. The ADU[40] started field-work in this district in 1987 as a part of its archaeological survey of the entire Chotanagpur plateau. As a result of this 10 new sites came to light. The preliminary reporting of this was done in 1988. In 1990, the author revisited the known areas of Baripada-Kuliana-Bangriposi and collected a good number of Lower palaeoliths. We may briefly give the description of the sites of this district as below.

1. Bijay-Ramchandrapur-Raghunathpur(BRR): Lat. 22°57′15″ N.; Long. 86°44′10″ E.

The site is just about 2 km. outside the Baripada town near the National Highway. At the eastern side of the road there is an extensive lateritic conglomerate exposed up to the fringe of the agricultural land. A nullah runs along the field and has eroded the lateritic deposit. A stratigraphy of bed rock followed by lateritic gravel and capped by soil can be seen at these eroded gullies. These eroded portions of the lateritic regions yielded some Lower, Middle and Upper Palaeolithic artefacts besides microliths.

2. Damodarpur (DMP): Lat. 21°57′20″ N.; Long. 86°45′ E.

At about another km. along the National Highway from the above site lies another eroded stretch of lateritic gravels. Some Lower palaeoliths including a handaxe were recorded from this spot. Here also microliths are seen on the surface.

3. Banskathia (BSK): Lat. 21°57′10″ N.; Long. 86°43′05″ E.

About 5 km. north of Baripada towards Kuliana occurs an extensive and much-eroded lateritic stretch. One handaxe and 3 side scrapers besides some debitages were collected from this surface. Here again microliths can be seen on the surface.

4. Kuliana (KLN): Lat. 22°03′45″ N.; Long. 86°39′35″ E.

Although this site has already been thoroughly worked by earlier investigators, we also picked up 5 well-finished handaxes from the loose soil. The site lies about 15 km. north-west of Baripada on the National Highway. In 1988, the author collected some more palaeoliths from the eroded lateritic bed of the Burhabalang which flows about $\frac{1}{2}$ km. from this site.

5. Kamta (KMT): Lat. 22°03′15″ N.; Long. 86°38′59″ E.

It is located near the village of Kuliana. The present author could also pick up some Lower palaeoliths from the eroded lateritic bed near the river Burhabalang. The collection consists of 4 handaxes, 4 cleavers and 1 side scraper.

6. Bankathi (BNK): Lat. 22°08′25″ N.; Long. 86°32′45″ E.

It is about 3 km. from Bangriposi towards Kuliana. Red bouldery gravel with a lateritic detritus can be seen on both sides of a narrow road. A small nullah cuts this gravel bed and the palaeoliths are seen exposed on eroded surfaces. As many as 8 handaxes and 6 side scrapers besides cores and flakes have been collected. Microlithic debitage in clusters are also seen on the alluvium cover.

7. Bangriposi (BGP): Lat. 22°08′30″ N.; Long. 86°32′15″ E.

The find-spot is situated at the foot of a hill near the locality. Towards the left on the main road to Kuliana one can see undulated land with areas of lateritic exposure. Cultivated fields merge with this laterite fringe. Lower palaeoliths were collected from this lateritic stretch. These include 2 handaxes, 2 cleavers and 2 side scrapers besides some waste material. Microliths are also seen scattered around the same surface.

8. Kadoyani (KDN): Lat. 22°09′30″ N.; Long. 86°22′ E.

It is a highly disturbed site scattered with stone fragments, located about 3 km. from Bisoi towards Jashipur. Palaeoliths were collected from erosional open-air surface. A single Lower Palaeolithic handaxe besides some Middle Palaeolithic tools could be picked up from here. Microliths were also present on the same surface.

9. Dudhakundi-Deupata (DDP): Lat. 22°09′ N.; Long. 86°21′40″ E.

The site is almost 2 km. from the previous one and is situated along the Bisoi-Jashipur road. The undulating eroded slope near a forest yielded a few Upper palaeoliths and microliths.

10. Mujhigaon (MJG): Lat. 22°08′15″ N.; Long. 86°21′10″ E.

It is also on the same road and is about 7 km. from Bisoi towards Jashipur. An eroded surface near a small streamlet yielded a few Upper Palaeolithic tools.

11. Ramtirtha (RMT): Lat. 21°57′15″ N.; Long. 86°05′ E.

A complex for the Crocodile Research Project is situated 1 km. west of the Jashipur market. Outside this complex there is an extensive lateritic gravel tract. This has been cut at places by rain-gullies. A collection of Upper palaeoliths was made from these eroded surfaces. Rich microlithic clusters are also there on the surface.

12. Jashipur-Keonjhar Road (JKR): Lat. 21°52′ N.; Long. 86°58′05″ E.

The site is near the road side at about 32 km. from Keonjhar towards Jashipur. The forest land has a cleared patch of stone-littered area at the site. Some Upper palaeoliths and microliths were collected from this site.

The above field report of Palaeolithic occurrences demonstrates that like the former two districts, the detrital lateritic gravel bed of this district is also implementiferous. Most of the sites lie in this bed and the largest concentration of sites was found on the tract between Baripada and Bangriposi. In all only 8 Lower Palaeolithic sites could be recorded from this district and a total of 67 specimens represent the span of typological variability of this period. Table 7 shows the typewise and sitewise distribution of Lower palaeoliths from this district. Middle palaeolith is really very poorly represented from this district—only two sites with a total of 4 specimens could be identified as belonging to this period (Table 8). Upper Palaeolithic is also represented by 7 sites with a collection of 88 specimens (Table 9). It is significant, because a number of studies surveyed in this region during the length of a century mention no developed Middle and Upper Palaeolithic sites in the Mayurbhanj district.

Lower palaeoliths

A discussion of the Lower Palaeolithic context for the area under study needs to be preceded by an understanding of the chronological possibilities on the basis of available evidence. This is considerably hindered because of a near absence of fossils in the Pleistocene deposits studied so far. The possibility for any absolute dating of this period also seems to be not very bright because of the same reasons. Ghosh in his detailed study of Singhbhum[41] mentions three layers of detrital laterites at Chandil and Ghatsila regions which are coeval with a lower gravel belonging to the beginning of Middle Pleistocene, a clayish deposit belonging to late Middle Pleistocene and a final upper loose gravel belonging to early Upper Pleistocene. These layers have progressively evolving Acheulian stages named as Acheulian I, II and III. The crucial problem, however, remains as to how does one distinguish these three kinds of lateritic layers as well as their corresponding materials. We have recorded a distinct cemented gravel at Shasaghati on the Karo and Kamalpur on the Garranadi in Singhbhum district and both the sites also contain Lower palaeoliths in this context. At this juncture it must be mentioned that two isolated incidences of Abbevillian-like massive handaxes from within a loose detrital context have been recorded at Ulighutu (CKP-III, Site no. 33) and Kendposi (HGM-III, Site no. 25) in Singhbhum. This solitary evidence cannot be considered to enunciate an Abbevillian cultural stage in this region. Likewise in the district of Hazaribagh at Kusumdih and Barkagaon Palaeolithic occurrences have been recorded in detrital lateritic layers. But, it is difficult to accept that these occurrences could be attributed to any stage within Middle Pleistocene. In this context, if we look at the evidence from the eastern fringe of Chotanagpur plateau in West Bengal, we can see that the fossil remains recovered from Susunia hill area (in the district of Bankura) do not indicate an antiquity of Lower Palaeolithic beyond Upper Pleistocene.[42] On the other hand, a true demonstration of an internal evolution of Lower palaeoliths from Abbevillian stage to late Acheulian form is still not available in India. In the face of this, the evidence from the area under study may not be exceptional. Consequently, in the absence of a better and more demonstrative evidence we propose to proceed with the assumption that Lower Palaeolithic stage in the Chotanagpur and its adjoining areas occurs within a broad chronological bracket of Upper Pleistocene. A typo-technological analysis of the Lower Palaeolithic evidence recovered in this connection becomes additionally significant. However, before we set out to look into the analytical details of our discoveries it is important to observe that being a collection from the surface more often than not we had no possibility to collect working debitage. Even flake tools, for that matter, may not be taken to reflect the actual cultural profile. This, consequently, renders estimation regarding adaptive strategies of early populations in this region as tentative.

Hazaribagh

The 127 Lower palaeoliths (Table 1; Fig. 2) collected from this district are mostly prepared on medium-size pebbles and cores of quartzite or quartz. Most of these are patinated by a dull-brown coating. In addition several specimens, particularly those collected from river beds, are also moderately rolled. Thus, in many instances flake scars on the tools have become nearly indistinguishable. The collection includes 9 chopper/chopping tools, 8 handaxes, 1 cleaver, 61 side scrapers, 4 borers and 4 points.

The chopper/chopping group ranges between 7 cm.-13 cm. in length and 5·2 cm.-10 cm. in breadth and mostly bifacially finished. A few unifacial choppers are also present. Although stone hammer technique is the predominant technique used for their fabrication, a typical block-on-block technique does not seem to be indicative. May be this technique (quite characteristic in Narmada) is more functional in working massive and spherical pebbles like in Guler-Banganga region. The Hazaribagh choppers in this regard are much smaller and prepared on flattish pebbles. Further, these do not compare with any of the early Lower Palaeolithic types known from other sites of India. Consequently, these would appear to be only heavy duty component of otherwise an Acheulian industry.

A study of the handaxes would help us to substantiate this view. The handaxes range between 8 cm.-15 cm. in length and 4·5 cm.-9 cm. in breadth. Although classification of these handaxes into specific sub-types enunciated by Bordes[43] may not be wise, in the absence of any other term we might call them elongated like Amygdaloid

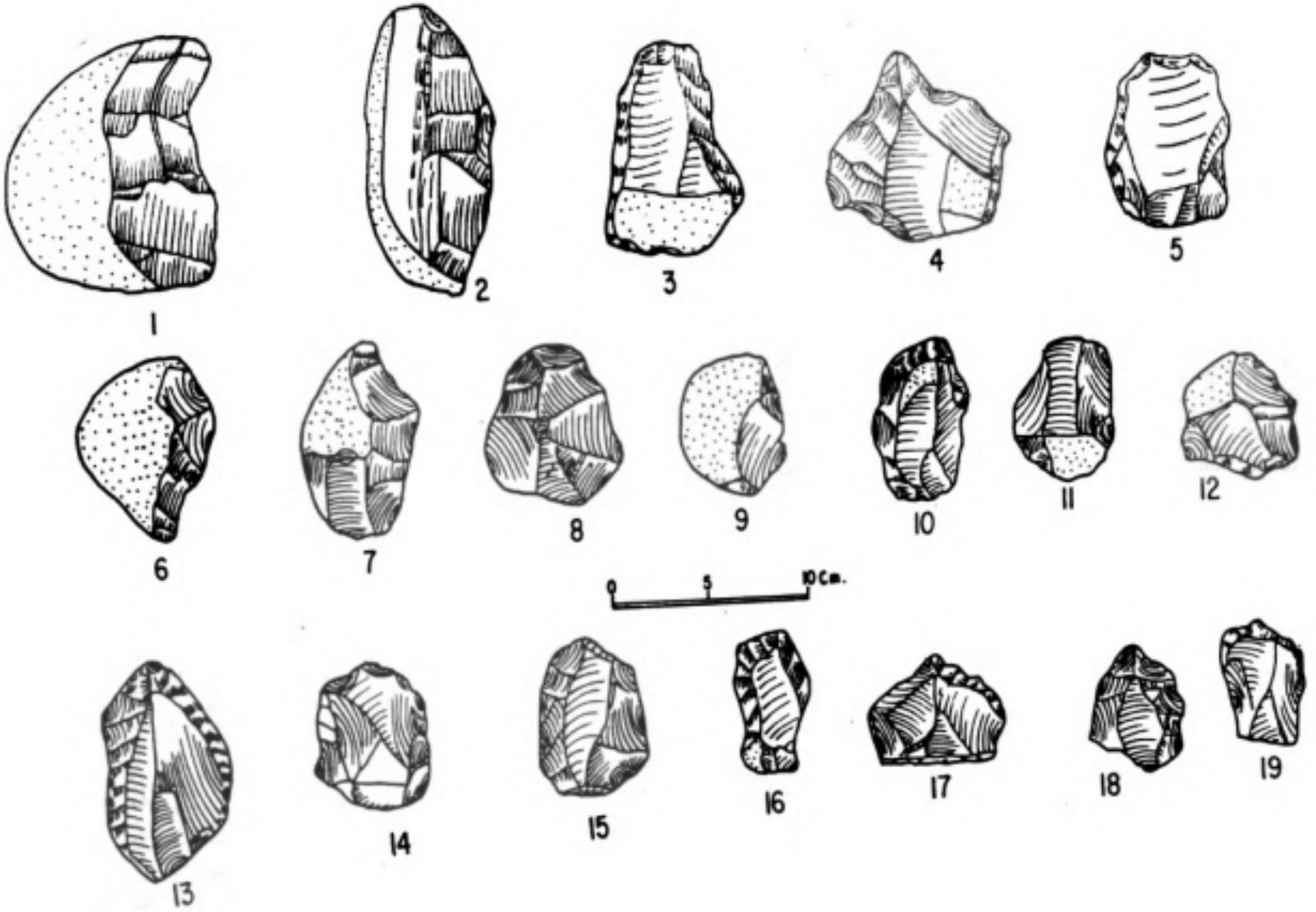

Fig. 2. Palaeoliths of Hazaribagh: 1 & 2, chopping tools (KSD); 3, side scraper (KSD); 4, borer (KSD); 5, side scraper (KSD); 6, chopping tool (KSD); 7, side scraper (KSD); 8, round scraper (KSD); 9 & 10, side scrapers (KSD); 11, flake/blade (KSD); 12-16, side scrapers (KSD); 17, borer (KSD); 18, point (KSD); 19, retouched blade (KSD)

in shape. The specimens are completely covered by secondary scars and even delicate border retouchings. Cylinder hammer technique is evidenced in all these workmanship. The lateral borders are straight in profile. Yet in cross-section, unlike Late Acheulian types elsewhere (c.f. Bhimbetka[44]), the Hazaribagh group are flat and oval in shape. In group they seem to conform to Middle Acheulian in type and technique. This conclusion would seem to be further reinforced by the fact that there is a general paucity of flake cleavers in this district. Only one specimen of this type was recorded in the entire collection of 127 artefacts examined. The tool type of side scrapers in this collection is of great interest. For instance, in many cases rounded cores/nodules have been chosen and a semicircular border has been retouched along one edge of this plano-convex nodule. A second significant feature about this type is that majority of them have bifacial flaking and even the border retouching is often done on both the surfaces. As a consequence of this technique which certainly indicates a local adaptation to quartz raw material, the working border achieved is never razor sharp, instead a sturdy, wide-angled cutting edge.

Points and borers are altogether 8 in number. Interestingly all these have been collected from one site (KSD). From none of the other sites in the entire district these types could be recorded. The points are basically prepared on elongated bladish flakes (L=7·4 cm.-10·3 cm; B=4·0 cm.-5·1 cm.). The dorsal surface shows an axially-running mid-rib and the pointed tip shows minute working along both the sloping borders. The borers have been mostly prepared on Levalloise flakes (L=5·1 cm.-7 cm. and B=4·3 cm.-5·6 cm.). Two borders are minimally retouched from alternate surfaces in order to meet a wide angle with a twisted edge, in the manner of *Bec-alternate* described in French typology. In addition, this district yielded a fairly good number of working debitage as well. These are 5 cores, 1 blade core and 20 flake/blade specimens.

Singhbhum

The district yielded 316 Lower palaeoliths (Table 4a & 4b; Figs. 3a & 3b) distributed over 41 sites, of which GLD and KSB[45] are the richest in concentration. Quartzite of both fine-grained and coarse-grained variety forms the predominant raw material. Most of the specimens are patinated and a few artefacts are rolled. The predominant tool types include 10 chopper/chopping, 100 handaxes, 22 cleavers and 76 side scrapers. Besides these 1 knife and 1 end scraper are also recorded but borer and point are not found. The working debitage especially from GLD is quite impressive. In fact large flake cores weighing as much as 10·5 kg. can be found on the surface. From the district 56 pieces of debitage have been collected of which GLD alone yielded 35.

The chopper/chopping tools are prepared on river pebbles, 4 of these are unifacially flaked (choppers) and 6 are bifacially done (chopping tools). The unifacial ones are

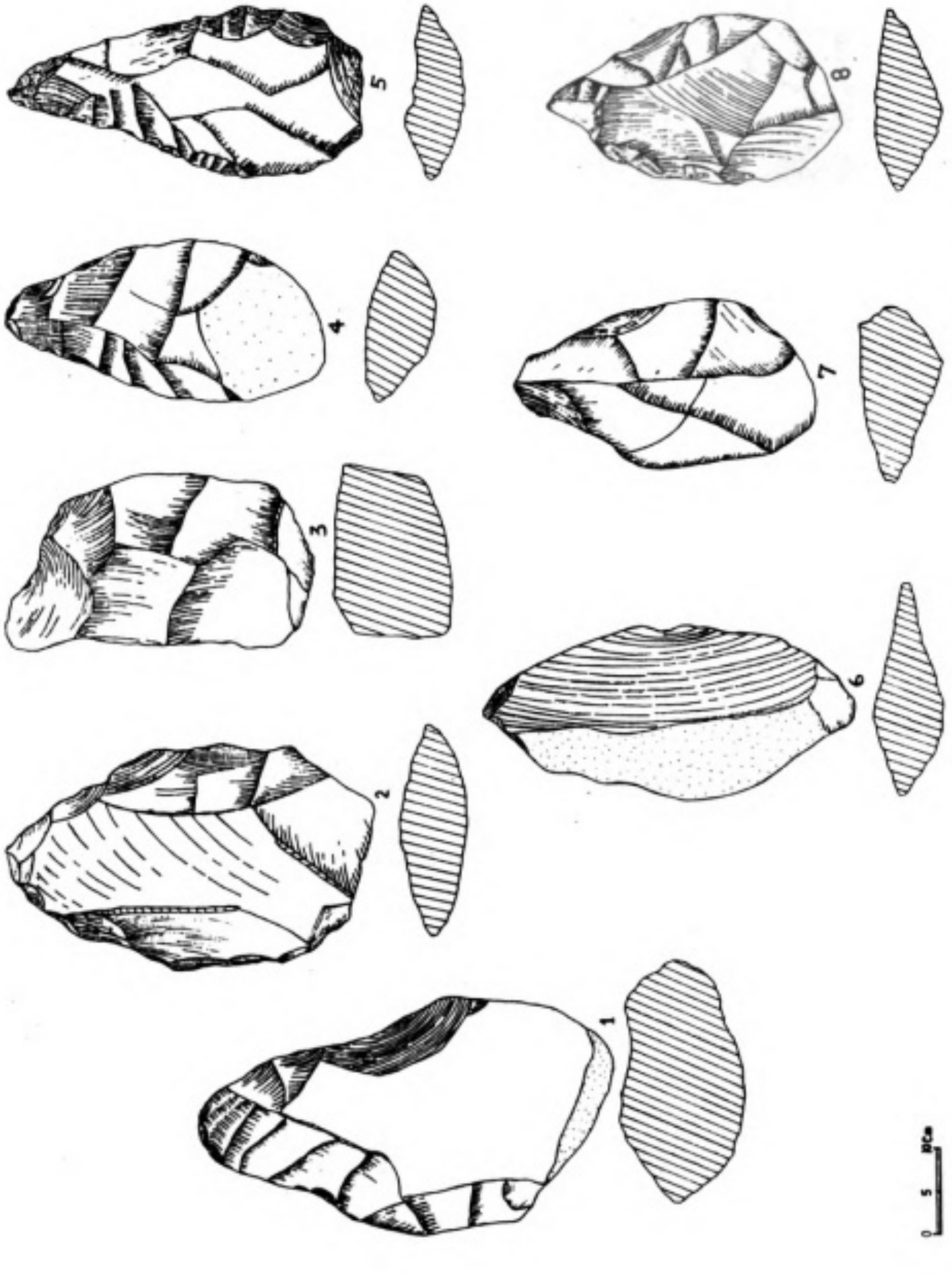

Fig. 3a. Palaeoliths of Singbhum: 1, handaxe (GND); 2, handaxe (SSP); 3, side scraper (SSP); 4, handaxe (SSP); 5, handaxe (ULD); 6, handaxe (BCD); 7, handaxe (MHP); 8, handaxe (PTB)

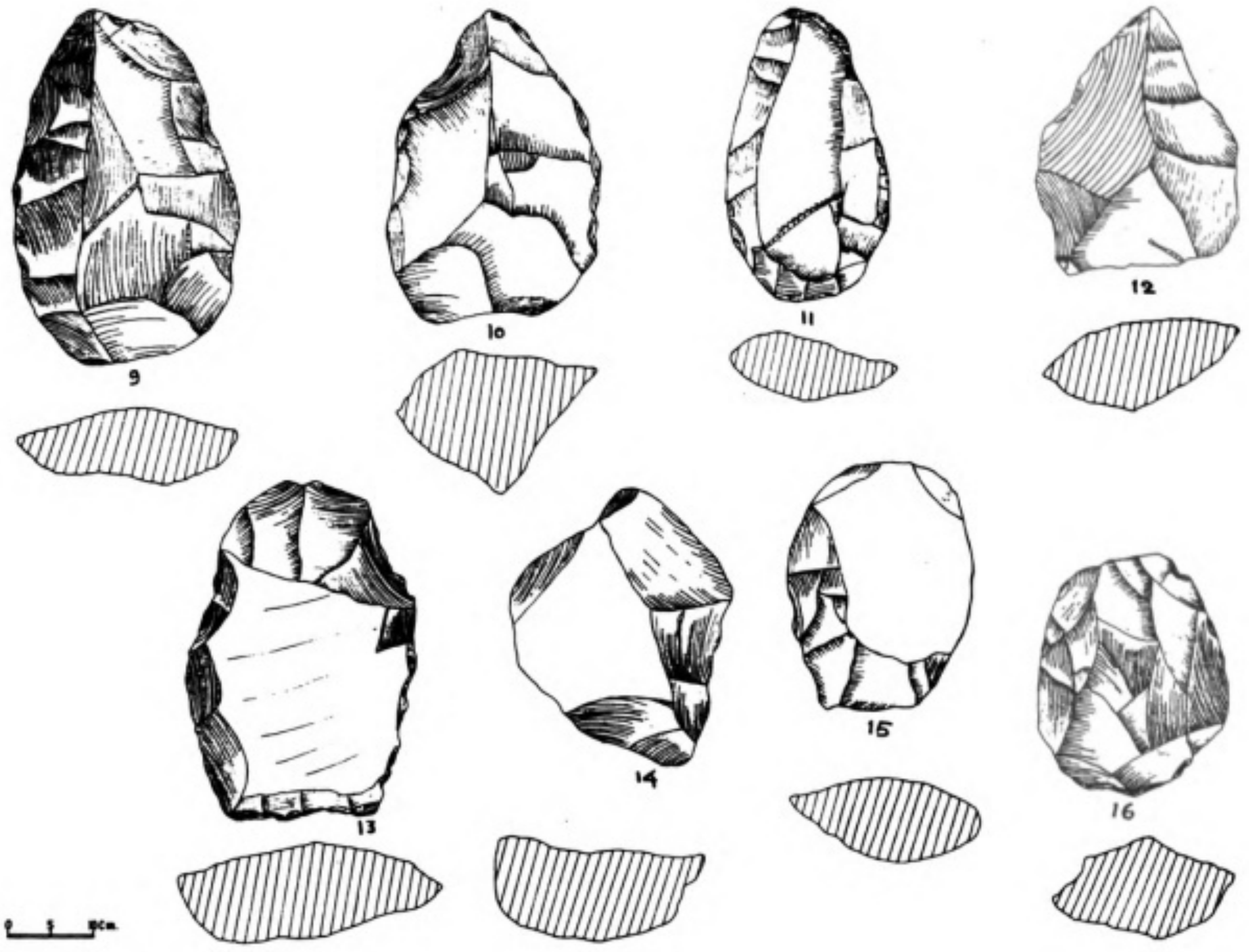

Fig. 3b. Palaeoliths of Singhbhum: 9, handaxe (PNP); 10, handaxe (KND); 11, handaxe (BRD); 12, handaxe (LPK); 13, cleaver (DND); 14, side scraper (BRD); 15, chopper/side scraper (BRD); 16, handaxe (LPK)

rather steeply flaked and look more like "push plain", while the bifacial ones have regular borders except in one case where a pointed border is formed.

The handaxes from this district are evenly distributed over all the sites except one. These are generally larger in size and better finished than those observed in Hazaribagh district. At Ulighutu (CKP-III, Site no. 33) and Kendposi (HGM-III, Site no. 25) we found two massive handaxes. These are highly patinated with minimum secondary flaking. In an extended sense these are Abbevillian in type. These measure 12 cm.-20 cm. in length and 6˙5 cm.-8˙5 cm. in breadth. Some of these elongated and large specimens prepared on fine-grained quartzite are extensively flaked with cylinder hammer and have remarkably straight working border and a thin cross-section. The lateral borders extending over the butt-end have a sharp ridge. These are some of the rare examples of late or advanced Acheulian handaxes. The other bifaces are usually smaller in size and are prepared on crystalline quartz. Although these are also extensively worked, these are more ovoid in shape and have a thick section. The cleavers recorded are both bifacial and flake cleavers with minimum ventral surface working near the butt-end. Altogether 22 cleavers have been collected from the district. In average they are 9˙1 cm.-17˙5 cm. in length and 6˙1 cm.-10˙3 cm. in breadth. A few of these cleavers have been prepared on Levalloise flakes with moderately chosen thickness, the faceted end forming one of the lateral borders. This required very few secondary flakings. The cross-section in most of the flake cleavers are either parallelogramatic or trapezoid in shape. A few specimens, especially those from BMN and GND, are indeed specimens of beauty because of their symmetrical shapes. Some of these are prepared by side blow technique and lateral borders are steeply flaked from alternate surfaces, thus producing the classic parallelogram cross-section. There are only some rare cases where the ventral surface is untouched, while the entire dorsal surface is covered with secondary flakes as in a handaxe. Naturally these have a plano-convex section. There is no instance of pointed-butt cleavers but faceting for hafting of sorts can be distinguished in many of them. Thus, taken together the biface component of Singhbhum can be clearly demonstrated as Upper Acheulian in character.

Side scrapers have been found in a fairly large number from this district, and some of them measure as much as 10 cm.-11˙5 cm. in length. Many of these are Levalloise flakes and maintain multifaceted striking platforms. In some rare cases medium-size round pebble cores have also been shaped by delivering a single flat undersurface scar and bold retouchings delivered on the dorsal surface. These can be more appropriately designated as scraper chopper. Being large in size many of these were probably used for the purposes of cutting. Retouchings delivered from ventral surface appear to be more common. Taken all these together, Singhbhum offers a fairly rich Upper Acheulian feature albeit adapted to a pebble-based raw material. In addition, both the specimens of knife and scraper from GLD are well executed.

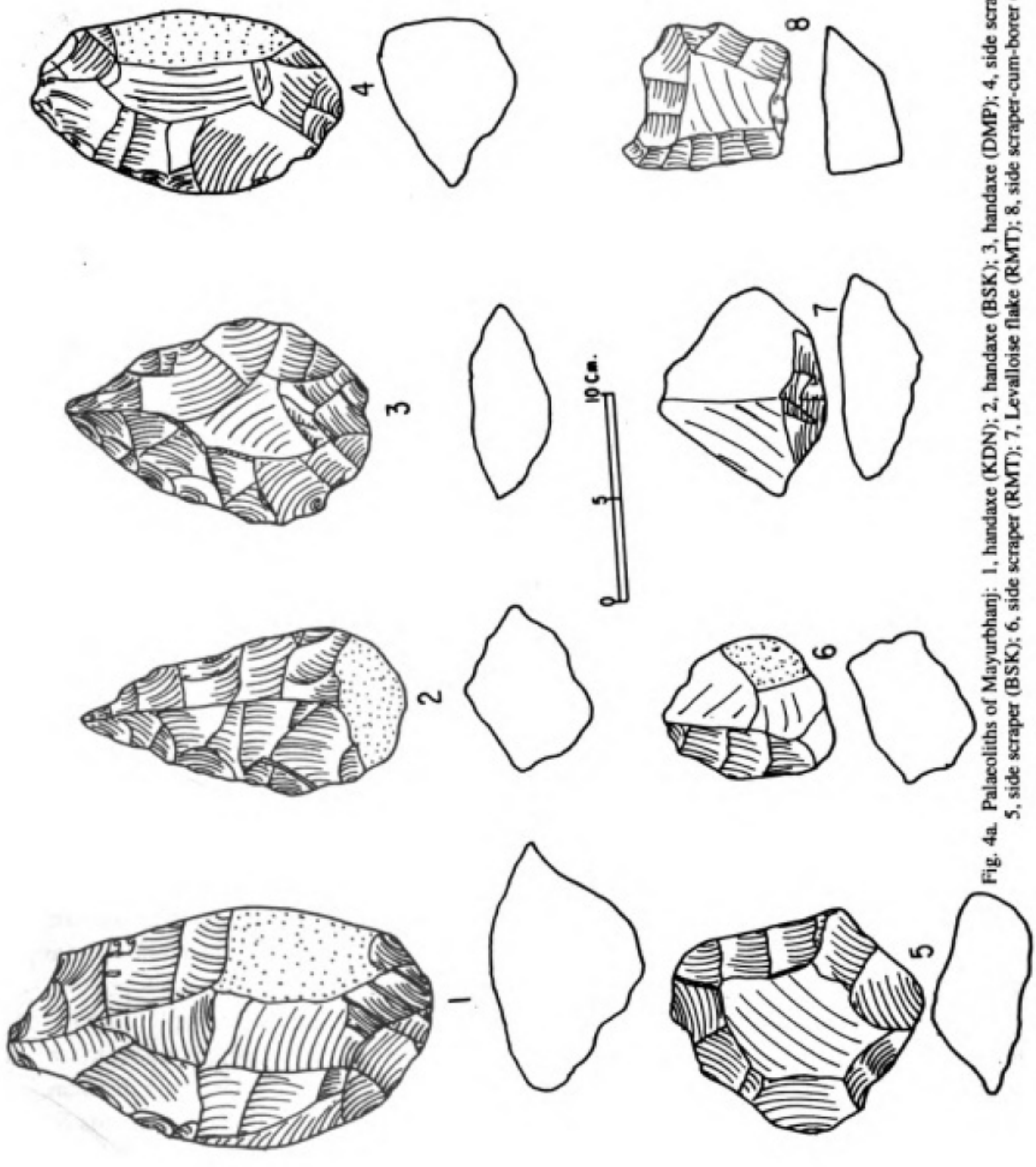

Fig. 4a. Palaeoliths of Mayurbhanj: 1, handaxe (KDN); 2, handaxe (BSK); 3, handaxe (DMP); 4, side scraper (BSK); 5, side scraper (BSK); 6, side scraper (RMT); 7, Levalloise flake (RMT); 8, side scraper-cum-borer (RMT)

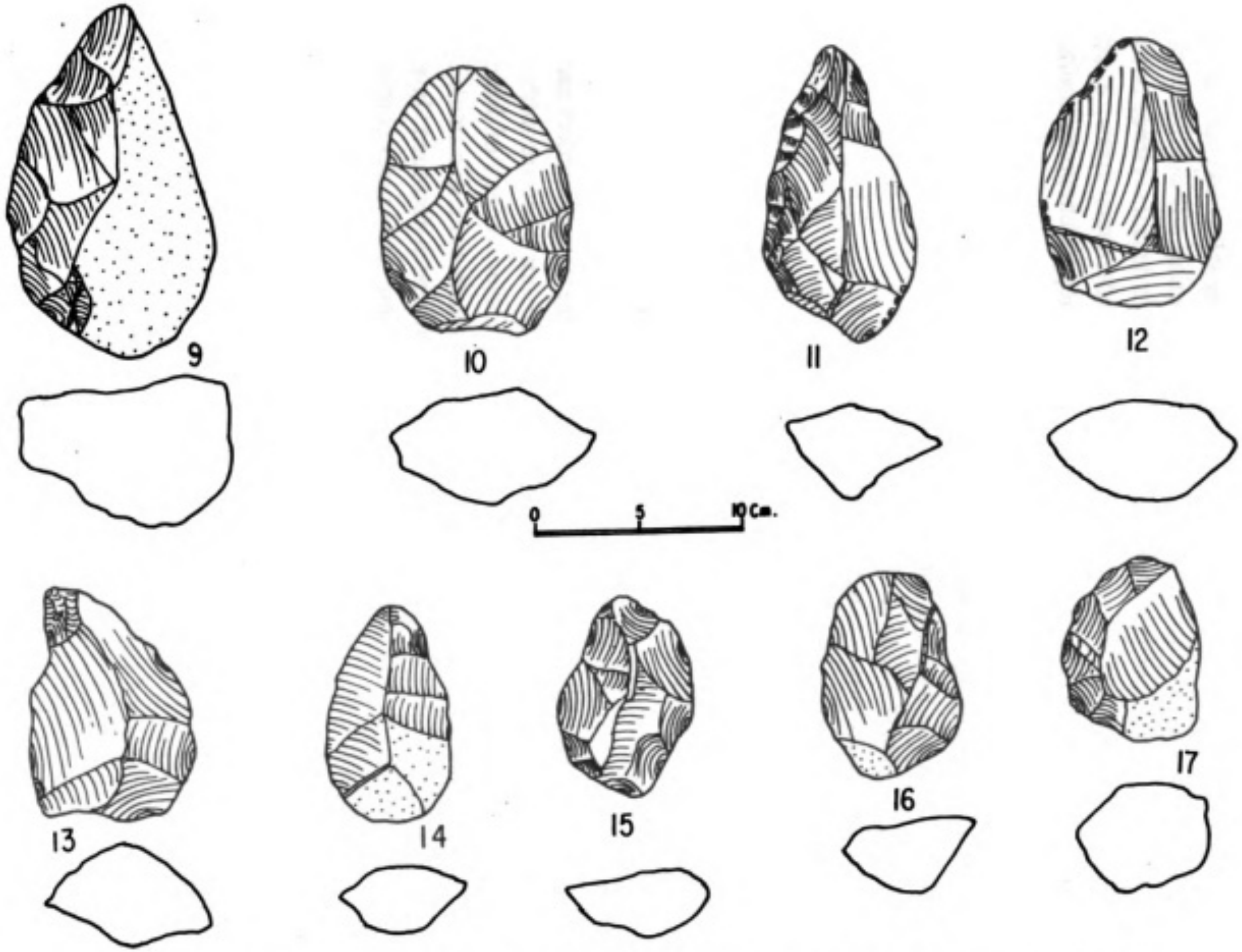

Fig. 4b. Palaeoliths of Mayurbhanj: 9, handaxe (BNK); 10, handaxe (BNK); 11, handaxe (BNK); 12, handaxe (BNK); 13, side scraper (BNK); 14, handaxe (BNK); 15, side scraper (BNK); 16, handaxe (BNK); 17, side scraper (BNK)

Mayurbhanj

Although 8 sites (Table 7) were identified, only 67 specimens (Figs. 4a and 4b) could be collected from this district. But this should not be taken to indicate that Mayurbhanj was sparsely populated during Palaeolithic period. Tools have been collected and carried away to various universities for the last five decades. Hence one has to admit that this was a substantially-occupied region. The predominant types recorded are 22 handaxes, 6 cleavers, 21 side scrapers and only 2 chopper/chopping tools. In addition to these, 3 discoid cores are also identified. It is imperative to point out at this juncture that Bose and Sen in their pioneering work recorded 663 specimens from 14 sites in this district. Out of these 294 were handaxes, 160 were choppers and 91 cleavers.

The chopper/chopping tools are found at BNK and BGP, one each. These measure 13·1 cm.-14·4 cm. in length and 11 cm.-13·1 cm. in breadth. One of these is unifacially worked, whereas the second is bifacial. These are fairly well-worked and the flakings extend over a larger area of the surface. That is to say, flakings are not limited to terminal region alone. The butt-end in both the specimens retain original pebble cortex.

Handaxes constitute the largest single tool type in this collection and have been found in all the sites except BRR. These measure 12 cm.-17·4 cm. in length and 6 cm.-9·2 cm. in breadth. One of the most dominant varieties of these has been finished on large and massive pebbles and often maintains a bulbous original cortex as the butt-end. More often than not the major sharpings are done by large primary and secondary scars. Secondary flakings and retouchings cover the lateral borders and the anterior end. These are definitely Acheulian in type but do not compare with flake handaxes with thin sections recorded at Singhbhum. The other variety of handaxes includes medium-size specimens prepared on suitable flakes with extensive retouchings all over. Here pointed as also rounded off anterior ends have been recorded. In either case the lateral borders extend over the butt-end as a ridge. These latter types conform to the subcordate class in French classification and hence can be counted very well as Late Acheulian.

Cleavers recovered are only 6 in number and of these KMT alone has yielded 4 and the rest 2 are from BGP. The specimens from the former are symmetrical in shape. These have been steeply worked from alternate surfaces and this has rendered the characteristic parallelogram cross-section. The specimens from BGP are rather carelessly finished and have patches of original surface retained on the dorsal surface. As before none of them has a pointed butt-end.

The side scrapers recorded are nearly as many as the handaxes. These measure 8·1 cm.-11·5 cm. in length and 6·5 cm.-8·0 cm. in breadth. A few of these are prepared on Levalloise flakes with retouchings executed along a border from the dorsal surface. In a few cases evidence of bifacial working has also been noticed. There are some specimens which show a peculiar feature of having naturally or artificially blunted border opposite the working border. It is quite likely that Bose[46] and Sen counted these as knives. Incidentally they counted 44 knives (6·63%) which was almost 3 times more than their collection of side scrapers (No. 172—56%). Most of the side scrapers are either convex or straight with the exception of one specimen which has a concave working border. The largest collection of this variety was made from BRR having 9 specimens, whereas BNK, BSK, BGP and KMT yielded 6, 3, 2 and 1 specimens respectively. In addition to these, BRR yielded a small round scraper as well, but this is atypical in type, and is known to occur in many Acheulian sites.

By the above survey it must be clear that we are actually dealing with an Upper Acheulian industry in all the three districts. But this obviously excludes the two isolated specimens of handaxe of Abbevillian type which cannot be considered for a generalized assessment. Thus a Middle Pleistocene data for them or a part of them may not be warranted. The three districts do show some intra-regional variation but these are not of a degree to enable us to ascribe them any chronological order. Consequently, what had been designated as Acheulian I, II and III earlier would seem to be a single and contemporary group of Middle to Upper Acheulian tradition.

Middle palaeoliths

Middle Palaeolithic context all along has been from eroded/loose surfaces and their distinctiveness as Middle palaeoliths is basically made through typology and technology. Middle Palaeolithic sites recorded by us in the area under study are relatively fewer in number and also yield fewer tools. In many cases working debitage totally eluded us. In all 22 such sites have been explored of which 4 sites are from Hazaribagh, 16 from Singhbhum and only 2 sites are from Mayurbhanj district.

Hazaribagh

In all 21 specimens from 4 sites represent the total collection from this district (Table 2; Fig. 2). Most of these artefacts are prepared on fine-grained silicious rock, though a few of them seem to have been finished on fine-grained quartzite and chert as well. Most of the finished tool types are prepared on medium-size Levalloise flakes and these include such diverse types as side scrapers (5), points (4), handaxe (1), borer (1), and thumb-nail scraper (1). Of these the handaxe deserves a special comment. It is a small specimen of only 6 cm. length and is totally covered with bifacial flaking. The butt-end is rounded, the lateral borders are wavy and the cross-section is biconvex. This could be counted as another bifacial side scraper but for its cross-section and the rounded butt-end. The rest of the types do not offer any special features except that the points are perfectly triangular or sub-triangular in shape and both the lateral borders are reinforced through their entire length. The thumb-nail scraper is not a microlith but a medium-size fragment of a core where a single slightly-concave scar forms the ventral surface and a round scraper has been worked with the under surface as platform. Besides these, 3 retouched flakes and a retouched core collected from BNG can be counted as unfinished specimens.

Singhbhum

This district produced 63 specimens spread over 16 sites (Table 5). Of these GND alone yielded 21 specimens. The raw material used shows no substantial difference from what has been observed earlier. Many of these show patination ranging from brown, yellow, and red to even white. One of the most significant features of the Middle Palaeolithic in the Chotanagpur plateau is the consistent occurrence of the handaxes. While Hazaribagh had only one handaxe, Singhbhum offered as many as 5 of them. These are between 6·4 cm.-12 cm. in length and 2·1 cm.-5·3 cm. in breadth. These are extensively flaked all over. The lateral borders of all these handaxes also exhibit marks of battering caused by use. In addition to these 2 diminutive cleavers were also found from this district. These are 6·2 cm. and 9 cm. in length and 4·2 cm. and 5·3 cm. in breadth. These are prepared on flakes with wide blow technique. The cross-section is trapezoid in shape. One of these have a pointed butt-end.

The side scrapers are mostly prepared on Levalloise flakes. Only a few of the total of 28 specimens are prepared from one surface flaking. The rest of the side scrapers bear evidence of bifacial flaking. In a few specimens the border opposite the working border is naturally or artificially blunted. Most of the side scrapers are either straight or convex in sub-types.

Six end scrapers were also found in the Middle Palaeolithic sites from this district. These have been prepared on thick and elongated flakes. The working border is either straight or convex, and at times oblique to the flake axis. A thumb-nail scraper is prepared on a quartz fragment of a nodule. Very steep retouchings have been done along a border on the convex surface. There are also 4 specimens of borers recorded. Two of these are on normal flakes and the other two are prepared on Levalloise flakes. Two of the borders of the flake are abruptly retouched in a slightly concave manner so as to meet at a projected boring end.

In addition to the above types 12 specimens of points were also recorded from 8 sites from this district. These are extremely varying in length: some measuring 9 cm. in length while others measuring as low as 5·8 cm. Five of these are prepared on Levalloise flakes, although in 4 of them the working tip is broken. All these have retouchings along the entire lateral margin. Five unfinished specimens coming from 5 sites have been counted as retouched flakes.

Mayurbhanj

Middle Palaeolithic from this district is very poorly represented in our collection. We could get only 4 specimens in this district (Table 8) and even out of these 2 are such unfinished type as retouched flakes. The types recorded are 1 handaxe and 1 round scraper. It is necessary at this stage to emphasize that the near absence of material belonging to this stage in our collection need not be taken to reflect the actuality. Mohapatra[47] has recorded as many as 404 specimens of Middle Palaeolithic from Mayurbhanj, Keonjhar, Dhenkanal and Sundargarh districts. These generally show a low Levalloise element with borers exceeding points as the basic character of Middle Palaeolithic Orissa. We have no reason to believe that this should be any different in Mayurbhanj.

An overview of the sites considered would indicate that Singhbhum shows a greater and more intensive occupation of the Middle Palaeolithic than the other two districts. Further, although Levalloise technique is noted in a good number of specimens from our present collection, as a whole it does not reflect one of those specialized Musteroid variety recorded from western India.

Upper palaeoliths

This terminal Pleistocene cultural phase poses considerable problem in most of India unless one is dealing with such classic Upper Palaeolithic sites of the Eastern Ghat region[48] or the sites of the Belan and Son valleys[49] as also the Bhimbetka[50] rock shelters in Madhya Pradesh and sand-dunes sites at Budha Pushkar[51] and Didwana[52] in Rajasthan. In rest of the country, the materials for this cultural stage can be identified only on typological basis. The area under present study seems no exception to this general trend. In fact, here one can also see microlithic occurrences overlapping these blade assemblages. In all 137 specimens were collected; of these 39 specimens are from Hazaribagh, 10 from Singhbhum and 88 from Mayurbhanj districts. Out of these 45 pieces are working debitage—15 from Hazaribagh, 2 from Singhbhum and 28 from Mayurbhanj.

Hazaribagh

Besides some side scrapers prepared on Levalloise flakes, the retouched blade, point, borer and backed knife form the types in our study of Upper Palaeolithic from this district (Table 3). Blades of 6 cm. × 4 cm. × 1·5 cm. (average measurement) prepared on fine-grained quartzite, quartz and chert are the noteworthy features of these Upper Palaeolithic assemblages. Many of these are distinctly retouched along one or both borders. These retouchings are rather steeply executed. The backed knife specimen nearly approaches a knife shape by this method of steep retouching done along one border of a punched blade. The side scrapers (8) are not very well-finished specimens. The points (3) and borer (1) are prepared on blades and are well-finished. The collection also contains retouched flakes and 7 retouched blades, made of quartzite.

Singhbhum

In all 10 specimens are collected from this district (Table 6). Fine-grained quartzite and chert are the usual raw material used. The collection includes 3 burins, 2 points, 2 retouched blades and 1 side scraper. Most of these are rather well-finished but still do not conform to typical Upper Palaeolithic types known from elsewhere in India. The MMC retouched blade, however, appears like a typical Upper Palaeolithic in variety.

Mayurbhanj

Unlike the Middle Palaeolithic experience in this period Mayurbhanj yielded 7 sites spread over a large tract (Table 9). Raw material used remains broadly the same as observed earlier. The size of the blades are 4·2 cm.-10 cm. in length, 1·3 cm.-4·5 cm. in breadth and 0·8 cm.-1·2 cm. in thickness. These are decidedly manufactured by punching technique with a soft hammer. Side scrapers (11) and the points (18), both prepared on broad blades, form the predominant types in this district. Both borers (3) and a single burin found are atypical and prepared on rather thick bladish flake. The five end scrapers recorded are also prepared on similar flakes and has a characteristic notch near the scraping border. This feature was also recorded earlier in the Middle Palaeolithic in these three districts. Besides the above tool types, 1 notched scraper, 1 awl, 2 backed blades have been identified as finished specimens, whereas 3 retouched cores, 7 retouched blades and 6 retouched flakes have been recorded as unfinished artefacts.

To sum up, Upper Palaeolithic in these three districts would seem to be inadequately represented. Yet, the features of whatever tools could be collected would definitely establish the presence of this phase in this region. Since, in almost all the cases their occurrence is on the surface and also since these are as a rule associated with fluted cores or similar other microlithic debitage, one can reasonably designate the Upper Palaeolithic of this region as an almost terminal Pleistocene phenomenon.

Sequel

The Palaeolithic history of Chotanagpur and its adjoining areas should provide important clues for understanding the spread of population in this part of India.

In the foregoing pages we have analysed the typo-technological as also chronological features of the evidence from three districts of the said area. On the basis of our field work, it appears that, notwithstanding the earlier claims,[53] the context of the

Palaeolithic occurrence in none of these three districts can be put beyond Upper Pleistocene. It must, however, be admitted that a clear-cut conclusion in this regard will elude us until we have fossils and radiometric data available. The geological features recorded also do not indicate an inner stratigraphic sequence separating the various stages of Acheulian. Neither can one demonstrate an older and hence preceding stage of Abbevillian existing in this region. In other words, if one has to decide on the population history of this region purely on typo-technological ground, it will appear that the first groups of human population who entered this region were Middle-Upper Acheulian culture bearers. It is a different matter that these populations subsequently stabilized their techniques with locally available raw material and thereby reshaped their cultural products. One can see from the above that the population of Mayurbhanj for long chose massive pebbles and thus created such secondary-worked pebbles that one cannot call them choppers but instead take them as core scrapers or scraper/chopper. This phenomenon is also present in some sites of Singhbhum. Hazaribagh, however, shows a slightly different form of pebble adaptation. Here flakes derived from pebbles were more predominantly used. If one can scan all the evidences the following points emerge as distinct possibilities.

1. The main Palaeolithic activity seems to have centred round Singhbhum where it has the maximum spread.
2. Palaeolithic activities in Mayurbhanj may be as early as in Singhbhum if not even slightly earlier, and here also the distribution of the artefacts is not only restricted to the hilly regions but extended to the undulated detrital lateritic tract. It is a distinct possibility that this distribution extended towards the east to Midnapur and then into Bankura in West Bengal.
3. Middle Palaeolithic was an indigenous development and represented continuation of the earlier culture. Hence change of raw material seems minimal. Further, the region as a whole is characterized by the continuing use of handaxes and at least one cleaver albeit in diminutive form. It is not surprising, therefore, that these do not compare with the typical Mousteroid types recorded from Maharashtra-Karnataka region.
4. Upper Palaeolithic, likewise, is very poorly represented. Further, more often than not these occurrences overlap in regions of microlithic occurrence. The chronic absence of typical burins and borers made on blade appears, as in an earlier stage, to have been a local characteristic. Yet it will be illogical to deny the existence of an Upper Palaeolithic stage in the present area of study, especially in view of the presence of retouched long blades recorded from Singhbhum and Mayurbhanj districts. Incidentally, the Damin area[54] of Santal Pargana, located at

> the north-eastern corner of Chotanagpur plateau, has yielded an excellent assemblage of broad and elongated blades, occasionally retouched into different tool types of the Upper Palaeolithic category. The raw material (mostly chert) used here, however, is quite different from the materials collected from the present area of study.

One can conclude that the users of Acheulian artefacts in the Chotanagpur and its adjoining highland of Orissa were the earliest inhabitants of this region and were in many ways comparable to social groups at this cultural stage in the rest of India. However, once they adapted themselves to this region, they seem to have developed a distinctive cultural pattern both in terms of their use of raw materials and in terms of the typo-technology of the tools. The palaeo-history of the Chotanagpur plateau and its adjoining highlands is significant from the perspective that it establishes the distinctive cultural personality of a geographical zone.

Site nos.	1	2	3	4	6	7	8	9	10	11	TOTAL
Site-abbreviations	GLA	KSD	BNS	HSG	BKG	PND	PRD	KSO	BNG	NPR	
ARTEFACTS											
Core	1	4	–	–	–	–	–	–	–	–	5
Blade core	–	–	–	–	–	–	–	–	1	–	1
Flake/Blade	1	14	2	–	3	–	–	–	–	–	20
Total debitages	2	18	2	–	3	–	–	–	1	–	26
Chopper/Chopping tool	–	8	1	–	–	–	–	–	–	–	9
Handaxe	–	1	–	–	2	1	2	1	1	–	8
Cleaver	–	–	1	–	–	–	–	–	–	–	1
Side scraper	2	44	1	4	6	1	–	2	–	1	61
Borer	–	4	–	–	–	–	–	–	–	–	4
Point	–	4	–	–	–	–	–	–	–	–	4
Retouched core	–	1	–	–	–	–	–	–	–	–	1
Retouched flake/blade	–	10	1	1	1	–	–	–	–	–	13
Total artefacts	4	90	6	5	12	2	2	3	2	1	127

Table 1. Lower palaeoliths from Hazaribagh, mentioned in the text

Site nos.	6	8	10	11	TOTAL
Site-abbreviations	BKG	PRD	BNG	NPR	
ARTEFACTS					
Flake	4	–	–	–	4
Levalloise flake	–	1	–	–	1
Total debitages	4	1	–	–	5
Handaxe	1	–	–	–	1
Side scraper	4	1	–	–	5
Thumb-nail scraper	–	–	1	–	1
Point	–	–	3	1	4
Borer	1	–	–	–	1
Retouched core	–	–	1	–	1
Retouched flake	–	–	3	–	3
Total artefacts	10	2	8	1	21

Table 2. Middle palaeoliths from Hazaribagh, mentioned in the text

Site nos.	5	6	7	8	9	10	TOTAL
Site-abbreviations	MND	BKG	PND	PRD	KSO	BNG	
ARTEFACTS							
Flake	1	–	1	1	–	2	5
Blade core	1	1	–	–	–	–	2
Blade/Blade fragment	1	3	–	–	1	3	8
Total debitages	3	4	1	1	1	5	15
Side scraper	–	1	5	–	2	–	8
Point	1	–	1	–	1	–	3
Borer	–	–	–	–	1	–	1
Backed knife	–	–	–	1	–	–	1
Retouched flake	–	–	3	1	–	–	4
Retouched blade	–	–	3	1	3	–	7
Total artefacts	4	5	13	4	8	5	39

Table 3. Upper palaeoliths from Hazaribagh, mentioned in the text

Site nos.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	TOTAL
Site-abbreviations	RCP	BRP	RDG	GND	SSP	RJD	CKR	SRN	TRG	MMC	BNS	FLD	KTD	BCD	GLD	ULD	KSB	MHP	PTB	CKM	
ARTEFACTS																					
Core	–	–	–	–	–	–	–	–	–	–	1	–	–	–	2	–	7	–	–	–	10
Discoid core	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5	1	–	–	1	–	7
Flake/Blade	–	–	–	–	–	–	1	1	–	–	2	–	–	–	22	–	6	–	–	–	32
Levalloise flake	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6	–	–	–	–	–	6
Total debitages	–	–	–	–	–	–	1	1	–	–	3	–	–	–	35	1	13	–	1	–	55
Chopper/Chopping tool	–	–	–	3	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	7
Handaxe	–	2	6	5	9	3	6	1	4	1	1	–	2	1	7	3	8	2	3	–	64
Cleaver	–	–	1	4	–	3	–	2	–	–	–	–	–	–	2	2	1	–	1	–	16
Side scraper	1	2	–	2	–	4	–	–	3	–	–	2	–	1	41	–	2	1	–	2	61
End scraper	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
Knife	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
Retouched core	1	–	1	–	–	–	–	–	–	–	–	–	–	–	16	–	1	–	–	–	19
Retouched flake	–	–	1	1	–	–	–	–	1	–	–	1	–	–	23	–	–	–	–	–	27
Total artefacts	2	4	9	15	13	10	7	4	8	1	4	3	2	2	126	6	25	3	5	2	251

Table 4a. Lower palaeoliths from Rakha-Ghatsila-Baharagora area of the district of Singhbhum, mentioned in the text

Site nos.	21	22	23	24	25	26	27	28	29	31	32	33	34	35	36	37	38	39	40	41	42	TOTAL	TOTAL PREV. PAGE	GRAND TOTAL
Site-abbreviations	KLK	KMP	HGM I	HGM II	HGM III	HGM IV	SSG	TTB	GHN	CKP I	CKP II	CKP III	TBO	HSD	LPK	JJD	BRD	KND	PNP	BMN	DND			
ARTEFACTS																								
Core	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	10	10
Discoid core	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	7	7
Flake/Blade	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	32	33
Levalloise flake	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6	6
Total debitages	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	55	56
Chopper/ Chopping tool	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	3	7	10
Handaxe	1	1	1	1	1	1	2	1	1	1	3	1	5	–	4	1	1	3	4	3	–	36	64	100
Cleaver	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	1	2	1	6	16	22
Side scraper	1	4	–	1	–	–	1	1	1	–	–	–	1	1	1	1	–	1	1	–	–	15	61	76
End scraper	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Knife	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Retouched core	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	19	19
Retouched flake	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	2	1	4	27	31
Total artefacts	2	5	1	2	1	1	3	3	2	2	3	1	6	1	5	3	4	4	6	7	3	65	251	316

Table 4b. Lower palaeoliths from other parts of the district of Singhbhum, mentioned in the text

Site nos.	1	2	3	4	5	6	7	9	10	22	27	29	30	32	36	40	TOTAL
Site-abbreviations	RCP	BRP	RDG	GND	SSP	RJD	CKR	TRG	MMC	KMP	SSG	GHN	KLJ	CKP II	LPK	PNP	
ARTEFACTS																	
Handaxe	–	–	–	–	–	–	2	–	–	–	–	1	–	–	–	2	5
Cleaver	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	2
Side scraper	1	1	–	13	4	1	1	1	–	1	1	–	2	1	1	–	28
End scraper	1	1	–	–	1	–	–	–	1	–	1	–	–	1	–	–	6
Thumb-nail scraper	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1
Borer	–	–	1	2	–	–	–	–	1	–	–	–	–	–	–	–	4
Point	–	1	–	3	1	2	–	–	1	1	2	1	–	–	–	–	12
Retouched flake	1	–	1	1	1	–	–	–	–	–	1	–	–	–	–	–	5
Total artefacts	3	3	2	21	7	3	3	1	3	2	5	2	3	2	1	2	63

Table 5. Middle palaeoliths from Singhbhum, mentioned in the text

Site nos.	3	7	10	21	8	TOTAL
Site-abbreviations	RDG	CKR	MMC	KLK	SRN	
ARTEFACTS						
Blade	–	–	2	–	–	2
Total debitages	–	–	2	–	–	2
Side scraper	–	–	–	1	–	1
Burin	2	–	–	–	1	3
Point	–	1	–	1	–	2
Retouched blade	1	–	1	–	–	2
Total artefacts	3	1	3	2	1	10

Table 6. Upper palaeoliths from Singhbhum, mentioned in the text

Site nos.	1	2	3	4	5	6	7	8	TOTAL
Site-abbreviations	BRR	DMP	BSK	KLN	KMT	BNK	BGP	KDN	
ARTEFACTS									
Discoid core	–	–	2	–	–	1	–	–	3
Flake/Blade	1	2	–	–	–	–	–	–	3
Total debitages	1	2	2	–	–	1	–	–	6
Chopper/Chopping tool	–	–	–	–	–	1	1	–	2
Handaxe	–	1	1	5	4	8	2	1	22
Cleaver	–	–	–	–	4	–	2	–	6
Side scraper	9	–	3	–	1	6	2	–	21
Round scraper	1	–	–	–	–	–	–	–	1
Retouched core	–	2	–	–	–	–	–	–	2
Retouched flake	1	5	–	–	–	1	–	–	7
Total artefacts	12	10	6	5	9	17	7	1	67

Table 7. Lower palaeoliths from Mayurbhanj, mentioned in the text

Site nos.	1	8	TOTAL
Site-abbreviations	BRR	KDN	
ARTEFACTS			
Handaxe	1	–	1
Round scraper	–	1	1
Retouched flake	–	2	2
Total artefacts	1	3	4

Table 8. Middle palaeoliths from Mayurbhanj, mentioned in the text

Site nos.	1	3	6	9	10	11	12	TOTAL
Site-abbreviations	BRR	BSK	BNK	DDP	MJG	RMT	JKR	
ARTEFACTS								
Flake	1	–	1	2	7	1	–	12
Blade	1	7	1	1	–	6	–	16
Total debitages	2	7	2	3	7	7	–	28
Side scraper	5	2	–	–	4	–	–	11
Round scraper	–	–	–	–	–	2	–	2
End scraper	–	–	–	–	–	4	1	5
Notched scraper	–	–	–	–	–	1	–	1
Awl	–	–	–	–	1	–	–	1
Point	8	–	2	–	4	–	4	18
Borer	–	–	–	1	–	2	–	3
Burin	–	–	–	–	–	1	–	1
Backed blade	–	–	–	–	–	–	2	2
Retouched core	–	–	–	–	1	1	1	3
Retouched blade	2	–	–	1	–	4	–	7
Retouched flake	–	–	–	–	2	4	–	6
Total artefacts	17	9	4	5	19	26	8	88

Table 9. Upper palaeoliths from Mayurbhanj, mentioned in the text

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8

Early Holocene adaptation in India: an anthropological perspective

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Culture change in prehistory has mostly been accepted as a temporal eventuality. It is not an experimental truth but a processual paradigm. The Mesolithic, in this dynamic process, is accepted as the culture that occurred with the onset of the Holocene and which preceded the Neolithic Revolution. It is widely believed that the Mesolithic culture itself paved the way towards sedentism and thus is a prelude to the Neolithic culture. Thus, two significant culture changes, one rapidly succeeding the other, are the hypothesis sought and demonstrated by archaeologists all over the world. Most archaeologists, as such, are trained to accept that man, no matter where he was living, must have gone through the identical process of evolving from one stage to another as hypothesized in the three-fold division of the stone age. Furthermore, these individual changes are also presumed as being identical in their basic details everywhere.

The traditionally-offered causative force for this change occurring everywhere in early Holocene is a 'drastic environmental change' which called for readaptation. The underlying assumption being that *like* environmental changes shall call forth *like* readaptive changes in a stimulus-response system (White 1959 and Steward 1955). And, although, it is now generally accepted that adaptation is a local problem and selective pressures favouring new cultural forms result out of a disequilibrium created in the culture-environment system (Binford and Binford 1968), deterministic evolutionary views still guide most of archaeological research to the extent of reducing it to a fetish rather than a testable hypothesis.

Trigger argues that this is because the limited nature of archaeological data conforms better to the deterministic evolutionary model by automatically reducing the amount of details to be explained (Trigger 1978, pp. 43-44). The assumption underlying this claim is that the aspects of culture that are represented in the archaeological record, particularly those concerning technology and economy, constitute the core of the culture, whereas those areas that are not perfectly represented are mainly random epiphenomena of minimal importance. Further, since the latter is mostly determined by the former, ultimately the whole culture is evolutionarily determined by the environment in a systemic manner.

This argument has its foundation in biological evolutionism and the Darwinian concepts of adaptation and natural selection. Hence, to undertake a critical examination of evolutionism in archaeology we must first undertake the same for its biological forerunner.

Biological evolution attempts to explain changes that occur in biological organisms that result in the formation of new species. The basic tenets of this process are:

1. New species arise by the transformation of an ancestral population into its modified descendants.
2. The transformation is even and slow.
3. The transformation involves large numbers, usually the entire ancestral population.
4. The transformation occurs over all or a large part of the ancestral species' 'geographical range'.

(Eldredge and Gould 1972, p. 89).

But how is this transformation facilitated? To understand this we need to examine the two processes of phyletic evolution and speciation. According to Darwin, the basis of evolution is the occurrence of random heritable modifications in the individuals of a population. The advantageous modifications are then adopted and the disadvantageous ones are discarded through natural selection: the differential survival and reproduction of genetically variant individuals.

Hence evolution is the result of an interplay between variation and selection. In each generation a vast amount of variation is produced within a species by the mechanism of mutation of genes and the random assortment of genes in reproduction (random drift). Individuals whose genes give rise to characters that are better adapted to the environment will be the fittest to survive, reproduce and leave survivors that reproduce. This is because some alleles are either more adaptive or less adaptive than other alleles and pass the test of natural selection to increase in the population. This is the process of phyletic evolution, the gradual changes that occur with time in a single lineage of descent resulting in greater adaptation to the environment (Ayala 1978).

Speciation, on the other hand, occurs when a lineage of descent splits into two or more new lineages. In sexually-reproducing organisms a species is a group of interbreeding natural populations that is reproductively isolated from any other such groups. The reproductive isolation of species is maintained by means of biological barriers known as reproductive isolating mechanisms. Speciation commonly occurs in two stages: a first stage in which reproductive isolation starts as an incidental by-product of the genetic divergence between two populations, and a second stage in which reproductive isolation is completed when it is directly promoted by natural selection.

The first stage of speciation requires that the exchange of genes between two populations of a species be interrupted, usually by means of a geographical isolation. The absence of gene exchange between the two populations makes it possible for them to diverge genetically through phyletic evolution. As the isolated population became increasingly different genetically, postzygotic isolating mechanisms may appear between them. This first stage of speciation is usually a gradual process. Moreover, it may be reversed if the two populations break isolation before they have reached a threshold of genetic differentiation and fuse together by interbreeding. However, if the genetic difference reach a level where their hybrid offsprings show significantly reduced viability then the two populations may undergo the second stage of speciation.

This second stage involves the development of prezygotic isolating mechanism, a process that is directly promoted by natural selection (*ibid.*).

From above it is clear that, while the two mechanisms of biological evolution are phyletic evolution and speciation, the driving force behind them is natural selection through adaptation i.e. the basic concepts of neo-Darwinian theory. The theory argues that:

(i) There is (significant) variation among individuals from a population of a species in morphology, physiology and behaviour. This is the principle of variation.
(ii) This variation is at least partly inherited . . . the principle of heredity.
(iii) Some variants are better adapted than others to their environment.
(iv) The better-adapted variants leave more offspring and thus contribute more to the genetic make-up of future generation (Krimbas 1984, pp. 5-6); i.e. they will increase in frequency with time and eventually replace completely the less-adapted variants.

This theory of phyletic gradualism (Eldredge and Gould 1972) underlies evolutionary and ecological explanations in archaeology. Hence, not only do archaeologists have their own hypothesis of phyletic evolution (unilineal evolution) but also speciation (the numerous evolutionary revolutions). Further, the process is explained by selection (social-psychological) through ecological adaptation (optimization/maximization/energy efficiency). Lastly, along with the mode even the tempo is juxtaposed by arguing gradual step-by-step changes with infinite intermediate stages. Interestingly, where archaeologists have failed to demonstrate these gradual transformations they have sought refuge to an argument also borrowed from their biological mentors: imperfection in the archaeological evidences (the palaeontological fetish of inadequate fossil evidence).

Yet there is enough evidence in existence to contest these theories and hypotheses, not only in archaeology but also in biology. And we shall below delineate some of these to question the validity of the neo-Darwinian theory of evolution and propose an alternate model of evolution, both for biology and archaeology.

The biggest problem faced by neo-Darwinian theory of evolution is that the concept of adaptation is by definition tautological (Krimbas 1984). In the four assertions made about neo-Darwinism above the fourth statement refers to fitness in its technical sense, that of differential reproduction, while adaptation, the explanation of this differential reproduction, refers to the third statement. Hence, if the Darwinian argument is to be preserved from a mere tautology, adaptation and fitness should be kept semantically independent in their respective definition. Yet, there is no adequate definition of adaptation that does not rely on fitness, selection or differential reproduction and thus be able to avoid the circularity and tautology in the argument. Hence, either the explanation is reduced to mere description of observed facts, worded in generalized statements or is teleologically asserted as cause-effect without any clear demonstration.

Differential reproduction, on the other hand, may have its own causes. These causes are, however, specific and different in different evolutionary processes since every evolutionary process is unique. This is either because the environmental sequence is unique and only one population of a given genetic constitution (both mutation and drift are random) is subjected to it, or because identical (demographically as well as genetically) populations react in different ways to the action of the same environmental factor due to the occurrence in one or the other of rare genetic events (mutation, recombination, genetic drift). These rare events drive each of them along a different pathway. And since, in unique events the detection of what we would call adaptation is an a posteriori procedure, it is clear that every evolutionary change taking place differs from every other (*ibid.*).

Hence natural selection is not a fact but a hypothesis, a law that has to be validated.

However, a more damaging indictment of neo-Darwinism comes from the proponents of the Neutral theory of evolution who question the basic premise of selectionism itself. According to them most of the mutant genes are selectively neutral, i.e., they are adaptively neither more nor less advantageous than the genes they replace. At the molecular level most evolutionary changes are caused by the 'random drift' of selectively equivalent mutant genes (Kimura 1979).

The essential difference between the neutralist-selectionist theories lies in their differing explanations of the evolutionary process by which mutant genes come to be substituted in a species. Every substitution involves a sequence of events in which a rare mutant allele appears in a population and eventually spreads through the population to reach fixation. Selectionists maintain that for a mutant allele to spread through a species it must have some selective advantages.

Neutralists, on the other hand, contend that some mutants can spread through a population on their own without having any selective advantage. If a mutant is selectively equivalent to pre-existing alleles, its fate is left to chance. Its frequency fluctuates, increasing and decreasing fortuitously overtime, because only a relatively small number of gametes are 'sampled' out of the vast number of male and female gametes produced in each generation, and are therefore represented in individuals of the next generation. In the course of this random drift the overwhelming majority of mutant alleles are lost by chance, but a remaining minority of them eventually become fixed in the population. If neutral mutations are common at the molecular level and if the random drift is continuous over a long time, the genetic composition of the population will change significantly (*ibid.*).

Then why is natural selection so prevalent at the phenotypic level when random selection of neutral alleles prevails at the molecular level? The answer to this is that the most common type of natural selection at the phenotypic level is 'stabilizing' selection (Kimura 1983). Stabilizing selection eliminates phenotypically extreme individuals and preserves those that are near the population mean.

The picture of evolution that emerges from this is as follows: from time to time, the position of the optimum of a phenotypic character shifts due to change of environment, and the species tracks such a change rapidly by altering its means. During this short period of change, an extensive shift of gene frequency is expected to occur at many loci, but this process itself will seldom cause gene substitution. But, most of the time, stabilizing selection predominates, under which neutral evolution or random fixation of mutant alleles occurs extensively, transforming all genes (*ibid.*).

This gives a picture of long periods of stabilizing selection, interspersed with periods of rapid directional selection to track environmental changes. This is similar to what Eldredge and Gould (1972) have argued in their theory of punctuated equilibrium in palaeontology: long periods of essentially no change interspersed with rare periods of sudden change.

The central concept of punctuated equilibrium is that new forms appear through allopatric speciation, i.e., new species can arise when a small local population becomes isolated at the margin of the geographic range of its parent species. A peripheral isolate develops into a new species if isolating mechanisms evolve that will prevent the re-initiation of gene flow when the new form re-encounters its ancestors at some future time.

A consequence of the theory of allopatric process is that since selection always maintains an equilibrium between populations and their local environment, the morphological features that distinguish the descendant species from its ancestor are present close after, if not actually prior to, the onset of genetic isolation. Most morphological divergence of the descendant species occurs very early in its differentiation, when the population is small and still adjusting more precisely to local conditions. After it is fully established, a descendant species is as unlikely to show gradual, progressive change as is the parental species. Thus, in the fossil record, we should not expect to find gradual divergence between two species in an ancestral-descendant relationship. Most evolutionary changes in morphology occur in a short period of time relative to the total duration of species; after the descendant is established as a full species, there will be little evolutionary change except when the two species become sympatric for the first time.

Hence, the basic tenets of allopatric speciation is:

(i) New species arise by the splitting of lineages.
(ii) New species develop rapidly.
(iii) A small sub-population of the ancestral form gives rise to the new species.
(iv) The new species originates in a very small part of the ancestral species' geographic extent—in an isolated area at the periphery of the range (*ibid.*, p.96).

This entails two important consequences:

1. In a local section containing the ancestral species, the fossil record for the descendant's origin should consist of a sharp morphological break between the two forms. This break marks the migration of the descendant, from the peripherally-isolated area in which it developed, into its ancestral range. Morphological change in the ancestor, even if directional in time, should bear no relationship to the descendant's morphology. Since speciation occurs rapidly in small populations occupying small areas far from the centre of ancestral abundance, we shall rarely discover the actual event in the fossil record.
2. Many breaks in the fossil record are real; they express the way in which evolution occurs, not the fragments of an imperfect record (*ibid.*).

This neutral theory of evolution-punctuated equilibria model represents a more complete theory of biological evolution than neo-Darwinism and can suggest a comparatively better processual theory for archaeological analysis as well.

This archaeological theory recognizes the role of chance in prehistory and attempts an explanation of the observed evidence in an interpretative manner, rather than to use a dogmatic assertion of adaptation and selection that can neither be demonstrated nor verified. Further, it takes the region as the unit of analysis and the sites as its sub-units rather than treat each site as a complete species evolving on its own, directionally. Hence, cultural evolution may be inferred from regional analysis as rapid changes resulting from unique cultural-environmental events. These, however, may not be represented in the archaeological records at all, as the duration of such change is brief and usually peripheral to the zone of dominance of its ancestral culture. Further, once a new culture evolves it may or may not spread into the wider region, may or may not replace its ancestral culture and may result in spatial complexity rather than temporal succession. And an evolutionary theory that can comprehend these complex cultural-environmental systems has necessarily to be interpretative, particularistic and processual rather than deterministic, generalizing and tautological.

In the rest of the paper we describe such an archaeological theory of culture change by analyzing the prehistoric cultures of the early Holocene period of north-western region of the Indian subcontinent. However, before that we would like to delineate an interpretative theory of culture change which is both processual and particularistic. The basic tenets of this theory are:

1. Developmental stages (in the sense of cognitive developmental psychology) can be distinguished in the ontogenesis of knowing and acting abilities. We understand these stages as learning levels that lay down the conditions for possible learning processes. Since the learning mechanisms belong to the equipment of the human organism (capable of speech), social evolution can rely on individual learning capacities only if the (in part phase-specific) boundary conditions are fulfilled.
2. The learning capacities first acquired by individual members of society or marginal social groups gain entrance into the interpretative system of the society through exemplary learning processes. Collectively-shared structures of consciousness and store of knowledge represent, in terms of empirical knowledge and moral-practical insight, a cognitive potential that can be used socially.
3. We may also speak of evolutionary learning processes on the part of the societies in so far as they solve system problems that represent evolutionary challenge. These are problems that overload the adaptive capacities available within the limits of a given social formation. Societies can learn evolutionarily by utilizing the cognitive potential contained in world views for reorganizing action systems. This process can be represented as an institutional embodiment of rationality structure already developed in world views.
4. The introduction of a new principle of organization means the establishment of a new level of social integration. This in turn makes it possible to implement available (or to produce new) technical-organizational knowledge; it makes possible, that is, an increase in productive forces and an expansion of system complexity (Habermas 1979, p. 160).

Turning now to the early Holocene period in India if we look into the distribution of Mesolithic sites from India we find that most of the regions previously colonized by Palaeolithic populations continue to be occupied albeit in a much more reduced manner. The regions north of Rawalpindi (now in Pakistan) and the adjoining areas in Himachal Pradesh seem to be no longer preferred in early Holocene. On the other hand the alluvial flat-land north of the Ganga in Uttar Pradesh seems to get freshly colonized during this period. The latter was an entirely new variety of ecology within fairly active monsoonic belt. Further, the settlement here must have been very successful in order to be able to multiply so rapidly (more than 200 sites are recorded from this region). In the rest of the country both the hilly regions as also the river basins have been preferred. Of the entire lot of Mesolithic occurrences known so far more than eighty per cent lie to the north and west of the straight line joining Patna and Baroda. These mainly include Rajasthan, Gujarat, western and central parts of Madhya Pradesh and Sind and Baluchistan in Pakistan. Himachal Pradesh, Punjab and Haryana seldom show Mesolithic occupations.

There are no consistent radio-carbon dates for all these sites but we can clearly divide them into two groups chronologically. The older group clusters around 5000 B.C. and the younger group clusters around 2500 B.C. Most of the older sites show preference for flat riverine plains and reveal indirect evidence of sedentism (Bagor in Rajasthan and Sarai Nahar Rai in Pratapgarh). Although very little evidence of birds has so far been known from these sites, that of fish is not altogether wanting. Pig, goat, sheep and cattle are the usual animal types found with these early Mesolithic forms. The younger group of sites show very little uniformity of either dates or the formal context. They vary from sand-dunes to woodlands and rocky regions. Geographically these two groups of Mesolithic sites are overlapping but due to the vast temporal gap between them they represent distinct occupations.

Mesolithic culture is mainly distinguished on the basis of its lithic technology i.e., microliths. In Europe this was coupled with the fishing and fowling economy that was adopted during the early Holocene. However, in India the latter character was neglected, while the chronological context, i.e., cultures occurring during the early Holocene, coupled with microlithic technology was recognized as the distinguishing feature of Mesolithic. Yet in many archaeological publications there is a tendency to argue that all early Holocene occupations are Mesolithic regardless of their lithic technology. This facilitates an easy adaptational explanation for its origin even if it is not substantiated by the archaeological evidences.

The western arid region of the subcontinent spreading from Gujarat to Baluchistan is an area which has shown continuous occupation from Palaeolithic period right up to today with constant evolution through sedentism to civilization and more. This is also the region which shows the earliest Holocene occupation in the subcontinent with sites like Bagor-Tilwara in Rajasthan and Mehrgarh in Baluchistan dating back to 5th-6th millennium B.C. Yet these two occupations are so different from each other that one may question the authenticity of a Mesolithic culture and seek specific explanations to their origins rather than to the usual adaptational one.

In the last decade and a half considerable amount of palaeo climatic information from various parts of India has been forthcoming for the terminal phase of Pleistocene (Allchin, Goudie and Hegde 1978, pp. 321-25). Apparently from around 20,000 to 10,000 B.P. there was intense aridity experienced in the whole of Gujarat, Rajasthan, Punjab and further west. This might have also influenced the middle and lower Gangetic plains. Monsoon was very weak and wind-borne materials started depositing themselves on the plains. Rivers in the south also started to deposit huge amount of their load of silt because of the lowering of rainfall. This was coupled with considerable lowering of the sea level all around the coast.

During this arid phase the dry desert region of India maintained a thin occupation of a culture that was based mainly on parallel-sided blades (*ibid.*). These cultures have been identified in the excavations in Rajasthan, Pushkar and Sind regions right up to Las Bela (south-east Baluchistan). However, the hilly regions of Baluchistan have till now produced no pre-Holocene occupation, though further west in Iran and Central Asia such occupations occur.

The climate experienced a further change during the early Holocene. Palaeoclimatic evidences show a marked humid phase during this period (*ibid.*, pp. 325-26). This increasing humidity combines with a thicker occupational density in the region, which is quite obvious. However, it also couples with a rapid change in the cultural complexity, though this is not constant all over the region. Mehrgarh at the western border of the region shows such rapid change that in 5000 B.C. it not only has settlement-structures but also domesticated flora and fauna along with a microlithic technology though aceramic. This within a couple of thousand years grows into a full-fledged Indus site with city architecture. On the other hand, Bagor in Rajasthan, which is coeval with Mehrgarh, is more typical Mesolithic with microlith technology and wild fauna. And though Bagor also shows change towards sedentism and production economy, it never reaches the cultural heights attained by Mehrgarh.

To understand these diverse cultural trends during the early Holocene we shall make a more detailed study of these sites and then use our theory of cultural evolution and change to interpret the evidences.

Bagor (74°23´E. and 25°21´N.) is a large village on the left bank of the river Kothari, a tributary of the Banas, some 25 km. to the west of Bhilwara. Mahasati, the dune on which the microlithic site is located, overlooks the left bank of the Kothari river about 1 km. east of the village.

Bagor lies in the gneissic plain of Mewar in the shadow of the Aravalli range. The topography of the region is characterized by extensive rocky tracts interspersed with isolated low hills and flat alluvial stretches of cultivable land in the valleys and along the river bank (Misra 1971).

The dune covers an area of about 200 m. east-west and 150 m. north-south and rises to a height of about 6 m. above the surrounding plain. Estimates show that an area of at least 80×80 m. (over 6000 sq. m.) was occupied during the earliest phase of the settlement.

The dune is composed of wind-blown sand and the habitational materials occur throughout in the sandy deposit, thus attesting that the dune was under active formation when it was occupied. Homogeneous nature of the sand precluded recognition of fine layers and the record of archaeological finds including structural features had to be kept in terms of the depths of various digs. Five broad layers can, however, be recognized mainly on the basis of change of colour in the sand.

Layer 1, 5-10 cm. in thickness, is composed of whitish sand which appears to be more or less of recent origin. Layer 2, 80-90 cm. thick is of dark-brown sand, the dark colour of the soil being due to the concentration of humus deriving from the tree and grass vegetation on the mound. Most of the habitational deposit occur in this layer. Layer 3, 70-80 cm. thick, consists of light-brown sand. Habitational evidence begins to decline in the middle of this layer and is completely absent in the lower parts. Layer 4, 30-60 cm. thick, is of a very light colour, almost yellowish sand, and is completely sterile. Layer 5 is formed of white highly-micaceous sand, rich in concencretionary pellets. It presents a marked contrast to the sand of the overlying layers and suggests a different agency for its formation (Sankalia 1974).

The total thickness of the habitation deposit is about 1·50 m. It reveals an uninterrupted occupation of the site over a period of 5 millennia immediately before Christ. During this period the ancestral culture based on stone technology and hunting-pastoral economy underwent continuous evolution. No stratigraphical break was seen in the occupation. However, on the basis of changes in material culture three phases of Bagor culture is recognized. Phase I (*c*. 5000-2800 B.C.) has a deposit of 50 to 80 cm. The Microlithic industry and animal remains are most profuse. The economy combined hunting-gathering and herding. People lived on stone-paved floors and in probably wattle huts. They buried their dead in an extended position in an east-west orientation. Phase II (*c*. 2800-600 B.C.) presents a deposit of 30 to 50 cm. The Microlithic industry and animal bones begin to decline in quantity but metal (copper) tools and hand-made pottery appear. The pottery has incised decorations. The dead were buried in flexed position in an east-west orientation and the graves contained pots, metal tools, ornaments and food. Habitation in Phase III (*c*. 600 B.C. to A.D. 200) is restricted to central part of the mound and has a thickness of 35 to 75 cm. The Microlithic industry greatly declines and animal bones are scarce. Iron tools came into use and pottery is wheel-made. Glass beads are added to ornaments. Bricks and tiles are used along with stones in structures. The dead were buried in an extended position in a north-south orientation.

The Microlithic industry of Bagor shows some characteristic features. They occurred in all phases in different frequencies. The richest horizon lay between 60 and 105 cm. This layer contained 74 per cent of the material. The raw material of the industry is predominantly quartz (79 per cent). Quartz range in quality from dull-white opaque to bright, translucent crystalline variety. 20 per cent of the material is made of chert and about 1 per cent of chalcedony. Chert is of many colours and include fine as well as coarse-grained variety, though the former predominates.

The lithic industry consists largely of microliths based on small blades. Flake tools are very little. Blades were struck from small prismatic core of cylindrical, pyramidal or squarish shape. Though the technique of blade production is advanced, the fluting technique was not used. Small hammer-stones bearing pitted marks were used to strike them. Other stone materials included querns, rubbers and undressed stones used in structures.

The secondary blunting of the blades is generally steep but sometimes flat. It was usually done on one border; retouching is rare and usually done on only one border.

Only 3·55 per cent of the assemblage is microliths. 0·68 per cent comprise cores and flake tools, mostly scrapers. The remaining 95·77 per cent is unfinished material. Of these 11·01 per cent are unretouched blades and the remainder cores and flakes.

Unfinished blades are 11·01 per cent (940 specimens). Finished tools are 4·23 per cent (362). Of these 3·55 per cent (304) are microliths and the remaining 0·68% (58) scrapers and other core and flake tools. Microliths comprise blunted back blades, retouched blades, obliquely-blunted blades, triangles, trapezes, crescents and points. Core and flake tools include scrapers, notches, burins and a solitary borer.

The only direct evidence of the economy of the early Bagorians are animal remains. These are maximum in Phase I, less in Phase II and least in Phase III. Most of the bones are fragmentary and charred showing evidence of roasting. Abundance of bones in Phases I and II shows that animal food was more important in the earlier stages of the settlement. The correspondence between the distribution of bones and microliths indicate that hunting was an important part of the economy in Phase I and to a less instance in Phase II.

The fauna was primarily wild. It comprised cattle, hog, deer, barasingha, wild boar, jackal, rat, monitor lizard and river turtle. Sheep/goat and fish bones were also present. Sheep/goat and some cattle appear to be of domestic variety. Hence the economy of Phase I must have been a combination of hunting and herding.

The decline of bones and microliths in Phase II suggests the rise of agriculture. Pottery, metal tools and ornaments also suggest the same as does the perforated stone, probably a weight for a digging stick.

Hence we find that initial settlers at Bagor were both hunters and herders but later the role of hunting and probably pastoralism and agriculture became more important (Misra 1971).

Turning now to Mehrgarh, the site is situated in the north of the Kachi plains, at the foot of the Bolan Pass. It is a transitional area between two different worlds, the arid inland plateaux of Inner Baluchistan, Afghanistan and Iran on one side and the Indo-Gangetic plains on the other (Jarrige and Lechevallier 1979).

Excavations were conducted in three places at Mehrgarh besides the main mound. These areas were, from north to south, MR-3 where no potsherds were found, MR-4, a zone close to MR-3 but where sherds start occurring on the surface, and MR-2 where sherds of a style earlier than those at the main mound (MR-1) were collected. In all, seven cultural phases were identified in the excavation ranging from aceramic to Harappan complexes. The earliest phase, in which we are here interested, dates from 6th to 5th millennium B.C., and the latest phase is contemporary with the Mature Harappan sites.

The oldest settlement (MR-3) corresponds to the few hectares wide platform overlooking the Bolan which yielded remains not associated with ceramic. From the surface four building levels have been excavated (Lechevallier and Quivron 1981). At all levels the building material used is unmoulded, unbaked mud-bricks of various sizes.

The level 4 yielded a large rectangular structure, divided at least into eight small compartments. On its north-south axis it measures 6 m. and on the other 3·60 m. It is preserved to the height of 0·80 m. The walls are built with two rows of bricks without any opening in anyone of them. The compartments to the west measure 1·60 × 1·00 × 1·30 m. and those in the east 1·30 × 1·00 × 1·30 m. No trace of fire was found here as also no other material.

The level 3 presented a small room, 2 × 1·80 m., just below the walls of the level 2. The wall was built of a single row of bricks and preserved in two or three courses only. A space in the south wall forms a doorway. On the floor, made of packed clay, a small grinding stone and reed-impressions were found.

At the level 2 several long unconnected walls, built with two rows of bricks, were excavated which are remains of large buildings. Only one nearly-complete structure is preserved to the north. Its walls are built with three rows of bricks and is divided into four small compartments of 1·50 × 1·00 m. No material has been found in this building. At the south-east corner, traces of intensive fire indicate fire-place or oven.

Several complex buildings have been excavated just below the present surface in level 1. They have the same north-south, east-west orientation. Structure B to the north (6·70 × 6·30 m.) is divided into six rooms, three to the north (2·70 × 2·25 m.) and three to the south (3·30 × 2·25 m.). The walls are made of two rows of bricks with alternate joints. No opening to the outside or between the rooms exists. One room in the north has a low bench of two or three bricks along three sides. The floor of another room is paved with split pebble. Three rooms to the south have fire-places. Grinding stone and hand-grinders, flint blades and bone tools were abundant in them.

Structure A (7 × 5 × 6 m.) is divided into ten small rooms. There are four rooms to the west and three to the east (3·25 × 1·35-1·70 m.). Three rooms in the centre are 1·50 × 1·25 m. The walls have a single row of bricks without any openings, except in a room to the north-west. One room to the west is divided into two, with one filled by a big hearth. Another room is covered with ashes and burnt stones. One room in the middle row has three fire-places. Several grinding-stones were found in the rooms.

The structures of MR-3 show that large rectangular buildings of various plans, proportions and types of construction were designed for different purposes: some for living, others not. The latter must have been used for domestic activities only, or for storing goods or keeping animals such as sheep/goat. This has economic and social implications. It means that a well-developed type of farming life could have already existed and that the settlement was a permanent village. In fact, the faunal and botanical research of Meadow and Constantini have demonstrated that people of MR-3 had animals like cattle, domestic sheep and goats as well as cultivated barley and wheat (*ibid.*).

In the faunal evidence from the MR-3 settlement, Meadow found evidence for both animal hunting and domestication. The hunted animals included gazelle, wild sheep, barasingha, wild cattle and wild goats while the domesticated varieties were mainly goat/sheep and cattle. However, by the end of the aceramic period most faunal evidence is from domestic sheep, goat and cattle although some wild varieties like wild pig, ass, gazelle, fox and jungle cat continue to exist. The fact that populations of wild sheep, goat and cattle were present in the area means that these animals were domesticated locally. Animal remains other than mammals are quite rare. Only a few bird bones, some carapace fragments of the turtle and a couple of catfish bones were found in this period (Meadow 1981).

A remarkable amount of information on cultivated plants has been obtained from impressions of straw and grains in mud-bricks (Constantini, 1984). Study of 30 bricks produced 5956 identified impressions. The proportions of the various taxa are: 91 per cent six-row barley, 4 per cent ein Kornemmer, 2·5 per cent wild barley, 1·8 per cent hulled six-row barley and 0·7 per cent wheat. In many cases, inside the impressions were found charred remains of the plant themselves.

While wheat and barley were the principal crops of Mehrgarh, other vegetal resources were Zizyphus fruits and date palm.

The lithic industry corresponding to this economy is also quite advanced. It is abundant (15,000 pieces). The flint is of good quality, fine and homogeneous, the colour buff or grey to light brown. It is a blade industry. The cores are small, pointed, either flat or conical. They show a parallel unidirectional debitage.

The tools (2570 in number) show a majority of retouched blades (40%) with various types of retouch. A good number are notched blades and truncated blades. There are some end-scrapers. The most characteristic tools are borers (3·8%) and geometric microliths (3·7%). The microliths are of three types: lunates (17), triangles (3) and trapezes (73). Sickle-blades are present in small numbers (1·7%).

Heavy duty tools include 13 axes (10 polished and 3 rough), 4 from the level 1 and rest from the surface, 8 adzes and 1 pick. Materials used for them include limestone, sandstone, chert gabbro and even chlorite.

Stone equipments include grinding stones and small hand-grinders. Many had ochre marks on them. There is one perforated stone. Only 4 small vessels were found in the level 1, 2 on the surface and 2 in graves. Asphalt-covered baskets have been found in several graves.

Many ornaments have been found in graves. Beads for necklace and bracelet and pendants, made of bones, shells and stones, were the majority. Stones were of various kinds. In the lower levels they were mainly limestone, white shells and bones while in the level 1 dark steatite and semiprecious stones such as carnelian, turquoise and lapis lazuli appear. One fragment of a copper bead was also found in a grave in the level 1.

In the northern part of the site, graves belonging to the upper level were found on both sides of Structures A and B just below the present ground level. There are eight to the east and twenty-one to the west. The skeletons, found in a very bad state of preservation, were lying on the sides, in a contracted position. They included skeletons of both adults and children. The graves appear to have been dug beside a brick platform or wall. Grave goods include beads and ornaments, baskets and stone equipments, many marked with ochre.

The burials of the lowest level are different. They appear together with other buildings. Stone, shell and bone ornaments were found in them, but no semiprecious stones. The graves lacked any built structure but had red ochre marks on the skeleton (Lechevallier and Quivron 1981).

From the above description it is clear that the lower layers of Bagor and Mehrgarh, though chronologically contemporaneous, exhibit vastly different cultural stages leading to independent and diverse internal developments. While Bagor shows a slow change towards metallurgy and agriculture over a period of 5000 years, Mehrgarh presents these characteristics at its earliest stages itself.

As described above, the north-western region of the subcontinent experienced increased aridity during the end of the Pleistocene period. During this period hunting-gathering communities with a lithic technology based on blades thinly inhabited this region. Very little is known about these communities except that they continued to occupy the region right up to the end of Pleistocene and into the transititon period between it and Holocene.

The advent of Holocene brought a relatively humid climate allowing a more dense occupation of the region. During this phase the lithic industry showed refinement and more advanced and fine blades were produced. This refinement and the change in climate demonstrated the rise of the Mesolithic here. Yet, as Allchin, Goudie and Hegde report, 'the difference between Upper Palaeolithic and Mesolithic industries is basically one of size . . .' (1978, p. 326).

Within this densely-occupied region some communities, however, showed more rapid evolution and sites like Mehrgarh showed cultural complexity far above the others in the region. Mehrgarh, being located at the transition area of the Baluchistan plateau and Indus valley, experienced a relatively greater climatic change than Bagor which was well within the dry zone and hence experienced a moderate humid climate.

The Indus valley provided the right climate and topography for growth of wild cereals like barley and wheat. This along with the fauna the people of Mehrgarh learnt to exploit and soon domesticate. With this the community made the transition from purely hunting-gathering to herding and agriculture. The community was now sedentary and hence showed evidence towards permanent village and construction of living and storage structures.

The abundance of food facilitated the rise of professionalism and exchange, both locally and over long distances. Beads, made of lapis lazuli, carnelian and turquoise, are evidence of long-distance exchange, as they are not locally available. Exchange also facilitated cross-fertilization of knowledge with communities further west in Afghanistan and Iran resulting in a rapid growth of a complex culture with metallurgy and finally urban settlement. Hence, by the mid-third millennium B.C. Mehrgarh showed evidence of a big city organization comparable to any Harappan city site (For a more detail analysis of the socio-economic factors producing these changes see Sen 1992).

On the other hand Bagor located within a dry zone experienced only a mild change in climate. It, not only, had no readily available wild cereals but also no rich water source. Hence it continued to remain a hunting-community right through its early phase. A shift in economy to herding and agriculture is evidenced only in the middle at the second phase, which is dated to 2800 to 600 B.C. Hence, it rose well after the Harappan Civilization had spread in this region. It is likely that the changes shown by Bagorians is due to their interaction with the more advanced Harappans than a totally indigenous change. That other more complex cultural-ecological forces must have been in action in both the cases is obvious and these can only be understood if more detailed studies are made of these two archaeological zones.

From the above it is clear that for India a uniform transition to Mesolithic in the early Holocene period can neither be demonstrated nor was it culturally-ecologically possible. Different geographical zones showed different cultural complexity depending on diverse factors acting there in a historical-particularistic manner. Even the complexity and learning ability of the ancestral culture influenced these changes. Further, these changes were so rapid and largely peripheral to the dominant occupational zones that hardly any evidence of the transition is preserved. They have mostly to be interpreted from the existing archaeological evidences from regional and cultural-ecological studies. Often the cultural changes are shifts in emphasis rather than wholesome innovations. Later forces of diffusion-integration or occupation-domination complicated the situation resulting in heterogenous cultural-regional diversity. This resulted in spatial complexity of cultures rather than their temporal succession. Hence evolution in archaeology must be historical and particularistic rather than deterministic and generalizing.

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9

Number only? A strange case for Monopoly

B.B. Lal

Ever since the discovery of the Indus Civilization in the early 20's of our century, several attempts have been made to decipher the script met with on the seals, sealings, pottery, bronze and ivory objects, etc. associated with this civilization. Amongst the earlier scholars who made such attempts the names of B.M. Barua, Henry Heras, B. Hrozny, G.R. Hunter, Piero Meriggi, Prananatha, Allan S.C. Ross, Sankarananda, L.A. Waddel deserve special mention. Since the late 60's there is a renewed effort, involving scholars practically from all over the world: for example, Walter A. Fairservis from USA, J.V. Kennier Wilson from UK, Asko Parpola and his colleagues from Finland, N.V. Gurov, Ju. V. Knorozov and their colleagues from USSR and Bankabehari Chakravarty, I. Mahadevan, K.V. Ramesh, M.V.N. Krishna Rao, S.R. Rao, S.K. Ray and Fateh Singh from India. By and large, these scholars have tried to read either a proto-Dravidian language or a kind of proto-Vedic Sanskrit in these inscriptions.

I have had the privilege of reviewing or partly commenting on the attempts of Asko Parpola, Ju. V. Knorozov, I. Mahadevan, M.V.N. Krishna Rao and S.R. Rao and have demonstrated in my papers[1] (Lal 1970, 1974, 1975, 1979 and 1983) as to where these people have gone wrong. And although I have not written on the attempts of the other scholars currently in the field, perhaps it may not be an overstatement to say that none of them has hit the mark.

In the midst of such a situation one welcomes two latest attempts, *viz.* those by B.V. Subbarayappa, Director, Centre for History and Philosophy of Science, Indian Institute of World Culture, Bangalore (India), and Egbert Richter-Ushanas, from Bremen, West Germany. Through his paper, 'Indus Script: The Womb of Numbers', Subbarayappa[2] stresses that all the symbols inscribed on the Indus seals, etc., represent nothing but numbers, whereas Professor Richter-Ushanas[3] is of the view that the Indus seals present to us Vedic hymns and allied matter. It is proposed to review in the present paper the stand taken by Subbarayappa, leaving the discussion on Richter-Ushanas' theory for a future occasion. In this context, it may be stated that the review, as has been my practice in all the previous ones, will be confined to pointing out the flaws in Subbarayappa's approach, which will demonstrate that if the very approach/methodology has its inherent pitfalls, how can the results arrived at be sound?

In a review like this, it would be only proper to present first the case of Subbarayappa himself so that readers get to know his side of the picture. Then would follow my comments. All this may make the review somewhat lengthy, but I am afraid, it cannot be helped.

I will begin by quoting the basic stand of Subbarayappa's thesis (p. 43 of his paper):

> 'Although the causes of the decay of this culture (Indus Civilization) have not been precisely identified, conceivably, some of its attainments would have lingered on and, the numerical system being one such of practical value would have found its way, directly or indirectly, into the later cultures in China, Greece, the Central Asian Complex including Vedic India.
>
> 'The surviving inscriptions, literary and other sources of these regions which have preserved the number-reckoning and the numerical forms provide valuable data for substantiating the Indus numerical forms.
>
> 'In fact, some of the numerical forms were adopted as such or with slight modification, by the Chinese Shang dynasty, the Attic Greeks and, nearer home, the regions where Kharoshthi and Brahmi were in use.'

In a nutshell, Subbarayappa's stand is that the symbols used in the Indus script were adopted by the scribes of the Shang dynasty of China, by the Attic Greeks, as also by those who used the Kharoshṭhī and Brāhmī scripts in India. As a follow-up, therefore, it would be only appropriate to assign to the Indus symbols the values that these symbols have been given in these latter scripts.

In this approach there are two basic flaws, as follows:

1. According to Subbarayappa himself, the Mature Phase of the Indus Civilization is assignable to *circa* 2500-1900 B.C. and the Late Phase to *circa* 1900-1600 B.C. (p. 2 of his paper). On the other hand, as Subbarayappa mentions, the inscriptions of the Shang dynasty of China pertain to the period *circa* 1400-1100 B.C. and of the Attic Greeks to *circa* 500 B.C. (p. 9 of his paper). The Kharoshṭhī and Brāhmī inscriptions are still later, *viz.* of the fourth-third century B.C. As of today, there is no evidence, direct or indirect, of the Indus Civilization having transmitted the symbols used in its script to either far-flung China in the east or to equally far-flung Greece in the west. It is a question of enormous distance in terms of not merely space but also time—at least in the case of Attic Greek, from 1600 B.C. to 600 B.C. How do we bridge these yawning spatial and temporal gaps?

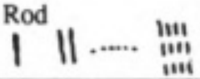
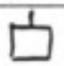
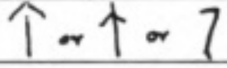
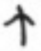
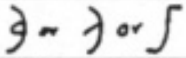
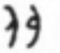
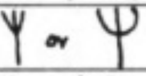
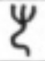
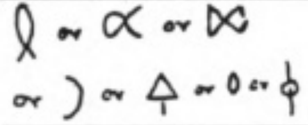
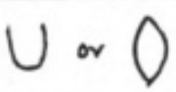
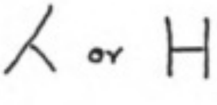
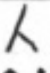
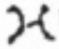
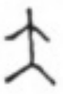
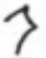
2. And no less important than the foregoing is the point that for his decipherment of the Indus script, Subbarayappa adopts just a few symbols from the Shang dynasty, a few others from the Attic Greek and a few each from Kharoshṭhī and Brāhmī. This kind of 'pick-and-choose' methodology really beats one hollow for, even conceding for argument's sake a case for transmission of the Indus symbols to China and Greece, one does not expect just a few odd symbols to have been picked up by the Chinese and some odd ones by the Greeks. Further, since the Chinese-Attic-Kharoshṭhī-Brāhmī amalgam did not fit the bill, Subbarayappa also brings the Egyptian script in the picture (e.g. his pp. 20 and 31).

Indeed, to assign values to symbols in a given script on the basis of mere morphological similarities in other scripts, unmindful of the spatial, temporal and

means-of-transmission factors, can be devastating. For example, do not the Roman capital letters C,D,E,F,H,I,M,O,T,U,V,W and X, as they are hand-written or in a slightly modified form, occur in the Indus script?

Anyway, having taken the aforementioned stand, Subbarayappa moves on to assigning values to the Indus symbols. The best way to convey the same to the reader would be to reproduce his Table VIII (p. 26), as it is:

Basic Numerical Forms on the Indus Seals

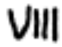
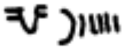
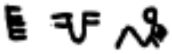
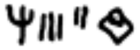
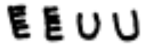
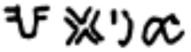
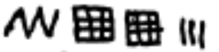
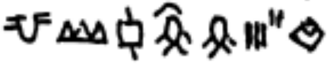
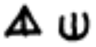
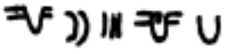
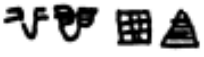
Basic Forms	Numerical value	Remarks
Countable Rod Forms: 	1 to 12	Used in Kharoshṭi inscriptions; horizontal form in Brāhmī inscriptions
□ or ◇ or X	4	X form used in Kharoshṭi inscriptions
	5	Derived from □
∧	6	∧ Used by the Chinese
	7	 Used by Chinese; in Brāhmī inscriptions
	8	 Used in Kharoshṭi inscriptions
	9	 Used in Chinese oracle-bone forms
	10	∝ Used in Brāhmī inscriptions;) used in Kharoshṭi inscriptions; △ used by the Attic Greeks; ϕ used by the Chinese
	20	U Used by the Chinese O Used in Brāhmī inscriptions
	100	 Used in Kharoshṭi inscriptions; also in Ashokan;  Used in Brāhmī inscriptions; H Used by the Attic Greeks
	1000	 Used by the Chinese T Used in Brāhmī numerals

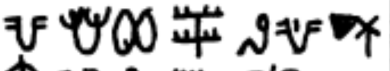
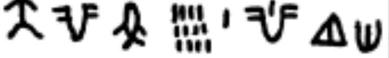
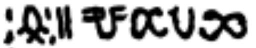
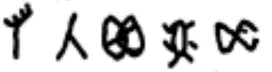
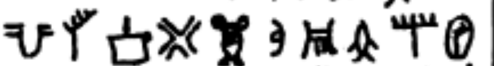
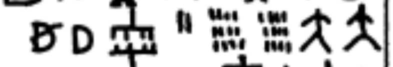
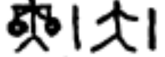
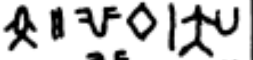
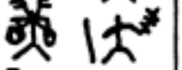
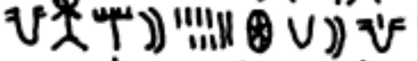
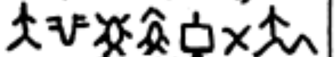
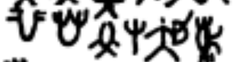
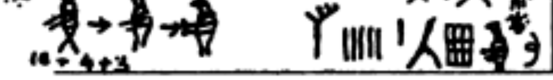
Herein, particular attention may be drawn to the 'Remarks' column, which clearly shows the 'pick-and-choose' technique adopted by Subbarayappa. The Kharoshṭhī, Brāhmī, Chinese and Attic Greek have been drawn upon as and when convenient. And, no less amusing is the fact that as many as seven different symbols of the Indus script have been taken to represent one and the same numeral, *viz.*, 10, and that the morphological parallels have been cited not from any one script but variously from the Brāhmī, Kharoshṭhī, Attic Greek and Chinese.

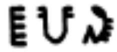
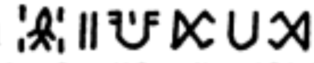
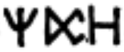
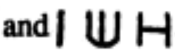
On the top of it all, Subbarayappa brings in the Vedic texts, as well. For example, on p. 29(a) while assigning the numerical value of 7 (6+1) to a symbol he adds: 'In Vedic literature, the word *śara*, i.e. arrow, means number 7' (strengthening his stand by referring to the Dictionary of Monier-Williams). Likewise, on p. 32, while dealing with the cup-like sign U, he not only draws the value of 20 from the Chinese but also states: 'In the Vedic literature, *nakha* (nail) stands for 20 (Monier-Williams Dictionary). Conceivably, this represents the common nail form for 10 fingers and 10 toes.'

After having given numerical values to the various symbols, Subbarayappa proceeds to 'decipher' the inscriptions occurring on the various seals, some illustrations of which he gives on p. 39. The same are reproduced here:

Some Illustrations with their Numerical Values

Symbols	Numerical value	Total
	3+20	23
	5+10+40	55
	64+40+15	119
	(4×2)+5+9	22
	20+20+15+15	70
	10+11+(4×4)+40	77
	3+9+9+13	34
	(4×2)+5+12+(12×2)+6+(10×3)+40	131
	30+(10×2)	50
	20+41+3+10+10+40	124
	14+9+70+40	113

Symbols	Numerical value	Total
	(40+13)+41+60+(14+14)+(20+20)+90+40	352
	30+20+41+13+12+40+1000	1160
	10+20+10+41+2+(12×4)	131
	10+14+(20×20)+100+14	538
	(20+13)+15+12+400+8+18+(4×4)+5+14+40	561
	1000+1000+12+12+2+(14×2)+10+(10×2)	2084
	(1000×2)+1000(10+10)	22,000
	(1000×20)+4+40+2+12	20,058
	(1000×30)+1000(10+10+40)	90,000
	41+10+10+20+80+9+10+10+15+9000+40	9245
	(1000×6)+4+5+(12×2)+14+40+1000	7087
	16+(1000×20)+(12×2)+90+40	20,170
	8+17+9+100+6+14	154

It would be seen from the 'decipherment' that, according to Subbarayappa, all the seals bear nothing but numbers. For a while, let us accept this premise. But from the readings arrived at, it would appear that the Indus people had no 'system' as such for recording the numbers. To make the point clearer, I would take a couple of examples from his readings. Thus, the legend  has been given the numerical value of (reading from right to left) 64 + 40 + 15 = 119. Or, the legend  has been decoded as (again from right to left) 10 + 20 + 10 + 41 + 2 + (12 × 4) = 131.* One really wonders as to why the Indus people should have taken recourse to such a piece-meal and cumbersome method of conveying the numbers 119 or 131 when, as per Subbarayappa's own Table VIII, and further elaboration on the succeeding pages of his paper, they (the Indus scribes) had symbols, amongst others, for 1, 9, 20 and 100 with which they could have easily written the numbers 119 and 131 as  and , respectively.

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* In this context one may also note that the same number, 131, has been decoded from an altogether different set of symbols (cf. line 8 from top on the same page, 39).

It appears to me that once having taken the stand that the Indus symbols represent nothing but numbers, Subbarayappa has no escape but to 'read' the inscriptions as an amalgam of numbers, howsoever cumbersome and odd the outcome may be.

As already mentioned, Subbarayappa reads nothing but numbers in the Indus seals and thinks that these (i.e., the seals) 'were meant for keeping accounts, say of bricks laid and used, the cattle, the pottery production, agricultural products, metallic objects and the like' (p. 41). However, the way he puts forward this thesis—with phrases like 'Could then one hazard a guess', indicates that he himself is diffident about its validity. In fact, there is good reason for him to be so, as would be seen from the following comments.

It is most unlikely that the seals 'were meant for keeping accounts.' The seals are *negatives* and were, by and large, meant for stamping, as is the practice even today. That, this was so in the Indus days as well would be clear from the discovery of a large number of clay pieces, found at almost all the Indus sites, which bear reed-marks on one side and the stamped impression of a seal (or seals) on the other. The warehouse at Lothal[4] also yielded a large number of pieces of this kind. For keeping accounts one does not use 'negatives', which were evidently pre-fabricated. Accounts are kept as positives and written as and when the need arises. Thus, without labouring the point much, it can safely be said that the seals (being negatives) were not 'records' in the sense one understands the term. Further, to say that all the symbols on the seals represent numbers and numbers only—nothing else—is not vouchsafed by what the legends on seals in various parts of the world are known to contain. This was the position in ancient days and so it is even now. Numbers can legitimately form a part of the legend on some of the seals, as indeed they seem to do, but to say that they hold the monopoly seems to be unwarranted. Sorry for using a rather harsh word like that!

Postscript

In the first half of April 1989, while in Delhi, I had also the privilege of listening to a lecture by Subbarayappa. In it, he not only reiterated what he had propounded in his aforementioned paper, but also explained the significance of the unicorn and the braziers, depicted on the seals. According to him, the unicorn stands for farm-produce in general, and the braziers, depending on the manner of their depiction, signify the actual product, *viz.*, two-row, four-row or six-row barley, or wheat or cotton. He re-stressed that the symbols on the seals do record nothing but numbers, such as 119, 131, etc., of an yet-unidentified measure.

References

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2. B.V. Subbarayappa, 'Indus Script: The Womb of Numbers', *The Quarterly Journal of the Mythic Society*, Vol. LXXVIII, Nos. 1-2 (Jan.-June), Bangalore, 1987, pp. 126-63.
3. Egbert Richter-Ushanas, *The Symbolic Conception of the Indus Script* (Bremen, 1988).
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The reliability of archaeological evidence for mercantile/intercultural contacts between Central and South Asia, the Arabian Gulf, and the Near East in the late third and early second millennia B.C.

Elisabeth C.L. During Caspers

One of the most interesting developments in Middle Asian archaeology in recent years has been the emergence of an even clearer pattern of intercultural links and trading exchanges over a very wide area in the late third and early second millennia B.C.

We should begin by defining this area. It ranges from the south Turkmenia and the ancient deltaic basin of the Murghab, the lower Murghab region of the south-eastern Turkmenia (in ancient times known as Margiana); Uzbekistan; and the oases of north-west Afghanistan (Dawlatabad, Farukabad and Dashly), in ancient times known as Bactria; the central Baluchistan, the southern Pakistani and Iranian Baluchistan; the Indus Valley Civilization; Iran; the Arabian Gulf areas, *viz.* Bahrain, parts of the coastal Saudi Arabia, the United Arab Emirates and Oman; and ancient Mesopotamia.

My contribution for this Commemoration Volume dedicated to the late N.G. Majumdar, one of the greatest pioneers of Indian archaeology, is aimed at selecting certain material goods which give irrefutable evidence of the contacts referred to. Besides these goods there was also a trade in raw materials such as lapis lazuli, agate and carnelian, turquoise, gold, silver and ivory. We may postulate in addition an exchange of more perishable substances such as foodstuff, fabrics, both timber and finished wood-products. The last have left no trace; so we are not in a position to prove if they actually did exist in a basically non-recorded trade economy.

The first step is to examine some of the sites more closely. Since 1969 the Afghan-Soviet archaeological missions, in which V.I. Sarianidi has played a prominent role, have concentrated on the three oases of north-west Afghanistan, *viz.* Dawlatabad, Farukabad and Dashly. More than 70 sites have been recorded in these localities. Over a hundred graves in Dashly oasis have been excavated, and more than seven hundred at Dharkutan in southern Uzbekistan.[1] Some of these graves have been cut into the habitation-deposits, but more frequently, they have been encountered in the ruins of abandoned sites, and, most commonly of all, they are located in cemeteries proper. Besides, single, double and multiple burials, there are also cenotaphs. The graves were dug directly into the soil and consists of a sort of funeral chamber at the end of a relatively deep shaft. This chamber is either placed directly at the bottom of the shaft or extends from one of its sides. Bricks were often placed on top of the grave.[2]

As a rule the deceased were laid in a flexed position, either on their right or left side, but seldom in a prone or supine position. Their heads were turned towards the north. The graves were richly furnished with pottery—sometimes as many as a score of items have been recorded in one grave. Furthermore, such artefacts as copper needles and pins with richly decorated heads, cosmetic flasks of copper or pottery and steatite flacons, copper bracelets, copper blades, gold, silver and copper/bronze vases, stone beads, copper and stone stamp seals and cylinder seals have also been discovered in large numbers.[3]

Architectural similarities, the funerary rites performed in conjunction with the graves to judge by the presence of food offerings, the occasional interment of rams in separate graves also provided with offerings and the objects buried both with the latter and with the human dead themselves suggest a clear cultural identity between lower Murghab region of south-eastern Turkmenia (Margiana), the valley of the Surkhan-Daria river in south Uzbekistan and north-west Afghanistan, the latter two known as Bactria.[4]

Regular Soviet excavations in the lower Murghab region, the territory of the ancient Margiana, have taken place as early as 1972 with the expedition to Auchin-tepe and Takhirbay. In 1974 excavations started in the oases of Gonur and Togolok. Gonur I is the largest site of ancient Margiana, while another settlement-cum-temple complex lies in the oasis of Togolok. Excavations continued in 1977 and 1984-86.[5] More to the north lie the sites of Kelleli oasis with Taip-tepe south of the latter.[6]

However, the number of scientifically-excavated graves in Bactria falls far short of the, presumably, many thousands of graves illicitly opened and subsequently plundered by local Afghan farmers since 1974. Particularly, extensive grave-robbery has taken place in the neighbourhood of the villages Akcha, Farukabad, Dawlatabad and Nikcha in the province of Balkh. Many of the Bactrian graves are located almost directly below the surface, a fact which, according to Kohl and Pottier not only explains why so many thousands have been plundered, but also why so many seem to contain incomplete or secondarily- deposited skeletons.[7]

The Soviet archaeologists still adhere to the Soviet, uncalibrated C-14 dates of the mid-second millennium B.C. which are too low. However, if one assembles all the dates reported in the Soviet literature, adjusts them to the 5730 half-life, and applies the correction factors advocated by the MASCA Laboratories in Philadelphia, a fairly-consistent sequence of nearly fifty dates is obtained that pushes the Central Asian sequence back to an even slightly-earlier date than western archaeologists have so far favoured.[8] These available, corrected radiocarbon determinations and stylistic parallels to historically "secure" sequences, in Kohl's view, suggest the initial expansion of Central Asian settelements into the lower Murghab area and onto northern and southern Bactrian Plain, *viz.* southern Uzbekistan and north-west Afghanistan during the second half of the third millennium B.C. where it must have continued, particularly in southern Bactria throughout the first half of the second millennium B.C. Its development in south Bactria is particularly striking.[9]

The widespread practice of grave-robbery has meant that innumerable funerary objects have flooded the markets of the antique dealers in Kabul and, from there, have found their way into museums and private collections in Europe and the United States, where they have already become the subjects of articles and museum-catalogues.

The next step in the piecing-together of this complex pattern was taken at the Sixth International Conference of the Association of South Asian Archaeologists in Western Europe in 1981. There M. Santoni[10] reported on some recent discoveries in the southern sector of the large prehistoric site of Mehrgarh in the northern part of the Kachi Plain of central Baluchistan, Pakistan. Here, south of the fourth and third millennia mound, lay a badly-eroded cemetery including graves containing flexed skeletons, cenotaphs, and simple deposits and chronologically assigned to Mehrgarh Period VIII, *viz.* the late third-early second millenium B.C.

This funerary area yielded abundant material presenting obvious parallels with cultural complexes of eastern Iran, *viz.* the site of Shahdad on the edge of the Dasht-i-Lut;[11] north-west Afghanistan, *viz.* the Dashly oasis;[12] southern Uzbekistan, *viz.* Sapalli-tepe;[13] and the Murghab region.[14] A settlement near Mehrgarh called Sibri contained a similar cultural horizon to Mehrgarh Period VIII and once again showed a strong Murghabo-Bactrian character.[15] Among the important finds made at Sibri was a shaft-hole axe-adze in copper/ bronze, found near a black steatite cylinder seal showing a lion facing a bull.[16]

Subsequently at the Eighth International Conference of South Asian Archaeologists at Moesgaard, Denmark, in 1985, J.-F. Jarrige and M. Usman Hassan referred to a short second field-season at Sibri in 1982.[17] This furnished *inter alia* a double-faced white steatite amulet seal showing a cruciform pattern on one side and a winged animal facing a tree while trampling on a snake on the other side, and another cylinder seal similar to the first one found at Sibri. This second seal has a suspension-hole on one of the short sides and a representation on the other. It was obviously meant to be used as a stamp like those known from southern Bactria and Margiana, *viz.* Taip-tepe, where they show either a pattern in a drill-bore technique or a device cut in a linear style.[18] Also at the Moesgaard Conference in 1985 the first announcement was made of the exceptional chance discoveries of two clusters of antiquities at Quetta, north-west of Mehrgarh, in 1985.[19] Jarrige and U. Hassan reported that one of these was associated with a human burial and, on the basis of the associated artefacts, was dated to the Mehrgarh VIII Period. The other was a deposit not far from the first grave. This has since become known as the Quetta Hoard because of its unique assortment of typical Murghabo-Bactrian objects including stone 'scepters', miniature columns, stone discs, alabaster vases, copper/bronze objects like mirrors without a handle, being one of the three mirror types known from Bactria, two spatulas with twisted hilts, a long flat axe, a long chisel, a gold goblet decorated with four embossed lions set between two relief bands and with a double-grooved, twisted, rope-like band in the lower register, hundreds of tiny gold beads, two pendants of semiprecious stones, two gold pendants in the shape of a bull with a loop-hole soldered on to the unfinished back, a fragment of a composite statuette similar to those discovered in Bactrian graves, white steatite(?) pieces of inlay in the shape of trefoils (and kidneys?) and a copper/bronze cylindrical brazier which was meant to be suspended.

In an Addendum to their paper Jarrige and Usman Hassan have stated: 'It can therefore be assumed that the beginning of the style of pottery which will become dominant in the southern cemetery of Mehrgarh (Period VIII) has to be found in the late phase of a period corresponding with Amri IIIB, i.e. a phase of the maturity of the Indus Civilization. The first impression after this field-season (at Nausharo, situated about 2 km. east of Sibri) is that this new style of pottery is not intrusive at Nausharo since it is closely related to the traditional Harappan pottery, but it also marks a change which leads to the emergence of a ceramic complex typical of the Indo-Iranian borderlands, and very distinctive from the late Indus pottery of Amri IIIC and D. The discovery, 3 km. north of Nausharo, of a new site (Dauda Damb) whose surface is littered with sherds in the Mehrgarh VIII style and the chance discovery of three vaulted graves, containing pots similar to those from the cenotaphs of Mehrgarh VIII, indicate the importance of such a complex in the Kachi-Bolan area, in the beginning of the second millennium.'[20]

Santoni has pointed to the slight, but none the less real, indication of some development within the Mehrgarh sequence from Period VII to the Mehrgarh VIII Cemetery, which as Kohl and Pottier have pointed out agrees well with the fact that 'Jarrige favours an early relative correlation of the Mehrgarh VIII and Sibri data with Murghabo-Bactrian sequence, linking these materials specifically to remains from the Kelleli oasis in Margiana and to the earliest known Bronze Age remains in southern Uzbekistan from Sapalli.'[21]

Evidence for direct cultural and mercantile-economic contacts between the Bactrian-Margiana region and the Indus Valley cities has also been amply demonstrated by recent research of M.-H. Pottier, who has assembled the relevant archaeological evidence available, hitherto left unnoticed.[22] In a forthcoming publication I will demonstrate the existence of yet other archaeological items coming from the main Indus cities which equally show contacts with the Bactrian-Margiana culture, thereby augmenting the archaeological evidence now available.[23]

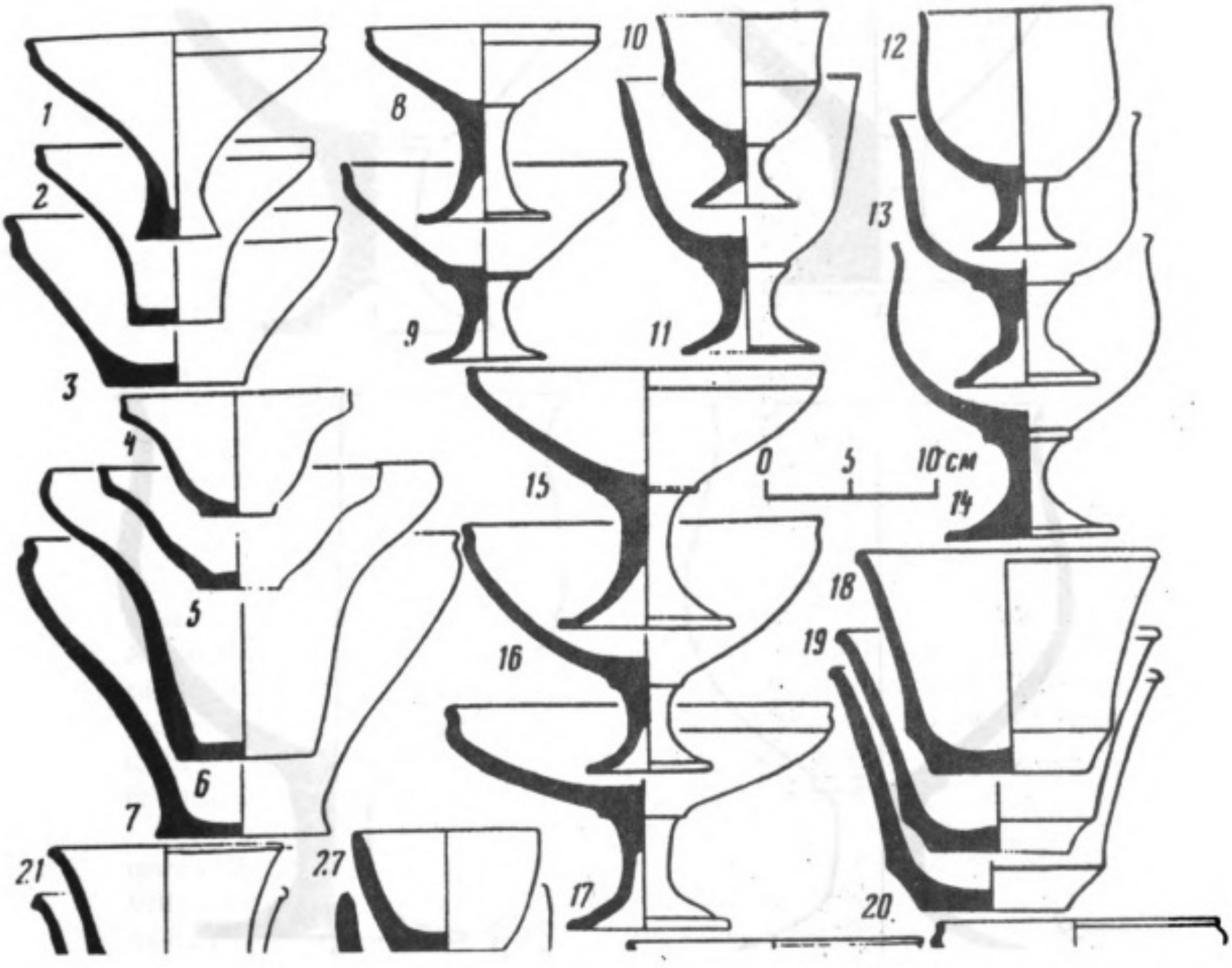

Fig. 1. Pots including pedestalled goblets, Togolok 21 (after L. Pyankova 1989, Fig. 6)

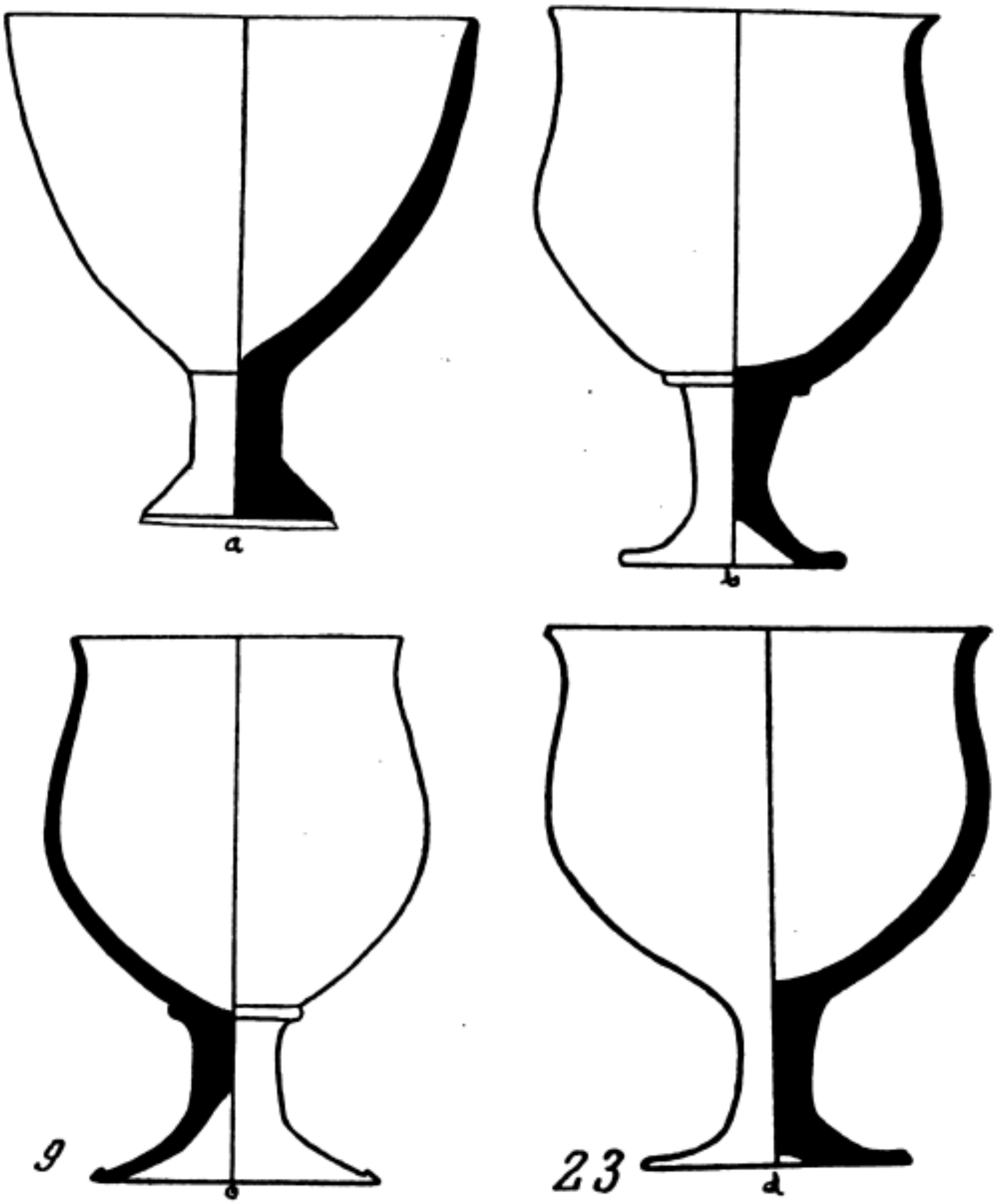

Fig. 2. Pedestalled goblets: a, from Gonur 1 (after V.I. Sarianidi 1990, Pl. XIII, no. 7); b, from Dashly 1 (after V.I. Sarianidi 1976, Fig. 18, no. 4); c, from Dashly 3 (after V.I. Sarianidi 1976, Fig. 33, no. 9); d, from Dashly 3 (after V.I. Sarianidi 1976, Fig. 34, no. 23)

The nub of this paper is to only discuss a few very distinctive pottery types and metal vessels and weapons discovered in Mehrgarh Period VIII, at Sibri and at Quetta, the so-called Quetta Treasure, all three in central Baluchistan, Pakistan, as well as in the Mehi cemetery and at Kulli[24] in southern Pakistani Baluchistan; at Khurab and Katukan in the Bampur Basin area of Iranian Baluchistan and at Fanuch and Damba-koh in Iranian Makran;[25] and in the Arabian Gulf regions, *viz.* the Arabian Peninsula, Bahrain and the Dhahran area of Saudi Arabia. We will then compare them with similar types and objects encountered in the Bactrian-Margiana region. Secondly we will point to clear contacts between the different Gulf areas and their cultural liaison with southern Baluchistan.

Jarrige has recently remarked[26] that the work at Mehrgarh VIII and Sibri has offered the opportunity for integrating not only some of the funerary deposits found by Sir Aurel Stein at Mehi and Khurab in Baluchistan in 1931 but also has shown strong affinities with Middle Asian cultural complexes at the end of the third millennium B.C. Furthermore, the work of P. Amiet has exposed the existence of common cultural features in an area ranging from Mesopotamia, southern Turkmenia to the Indus Valley. Amiet has referred to this as a cultural *koinè*. When we combine this with the material gathered by M.-H. Pottier from plundered graves in north-west Afghanistan and the finds of the Soviet archaeologists, it offers clear evidence of an increase in wealth linked to interregional exchange networks in the late third millennium B.C. Needless to say that all this is reshaping our concepts regarding the history of South and Central Asia during this period.

Among the Murghabo-Bactrian material from the South Cemetery at Mehrgarh VIII are pedestalled goblets with a distinct joint between the upper bowl section and the splayed foot; they are said to have been decorated with red paint.[27] With their characteristic plastic ridge at the junction of the bowl section and the splayed foot the goblets have close counterparts in, for instance, Dashly 1 and 3 in the north-west Afghanistan,[28] and the Margiana settlements[29] where they can be dated to towards the end of the third millennium B.C. Furthermore, similarly-shaped pottery goblets have been encountered in Bahrain,[30] Saudi Arabia[31] and the Oman Peninsula.[32] An initial reference to the correlation between the goblets from Mehrgarh VIII and those from Bahrain can be found in my paper in *PSAS* 1989.[33]

In Bactria and Margiana the cup section of these pedestalled goblets has a great range of different profiles ranging from a slender version like the ones from Mehrgarh VIII to distinctly globular (Pl. 10.1 and Figs. 1 and 2a-d). One variety shows a straight-walled profile and there are other examples with pronounced concave walls[34] (Fig. 3a-d). As we will demonstrate, the latter type has, so far, not been reported from Bahrain, Saudi Arabia or the Oman Peninsula, but the Khurab cemetery in the Bampur Basin, to which more reference will be made later on, does furnish such a straight-walled goblet, made of red pottery[35] (Pl. 10.2).

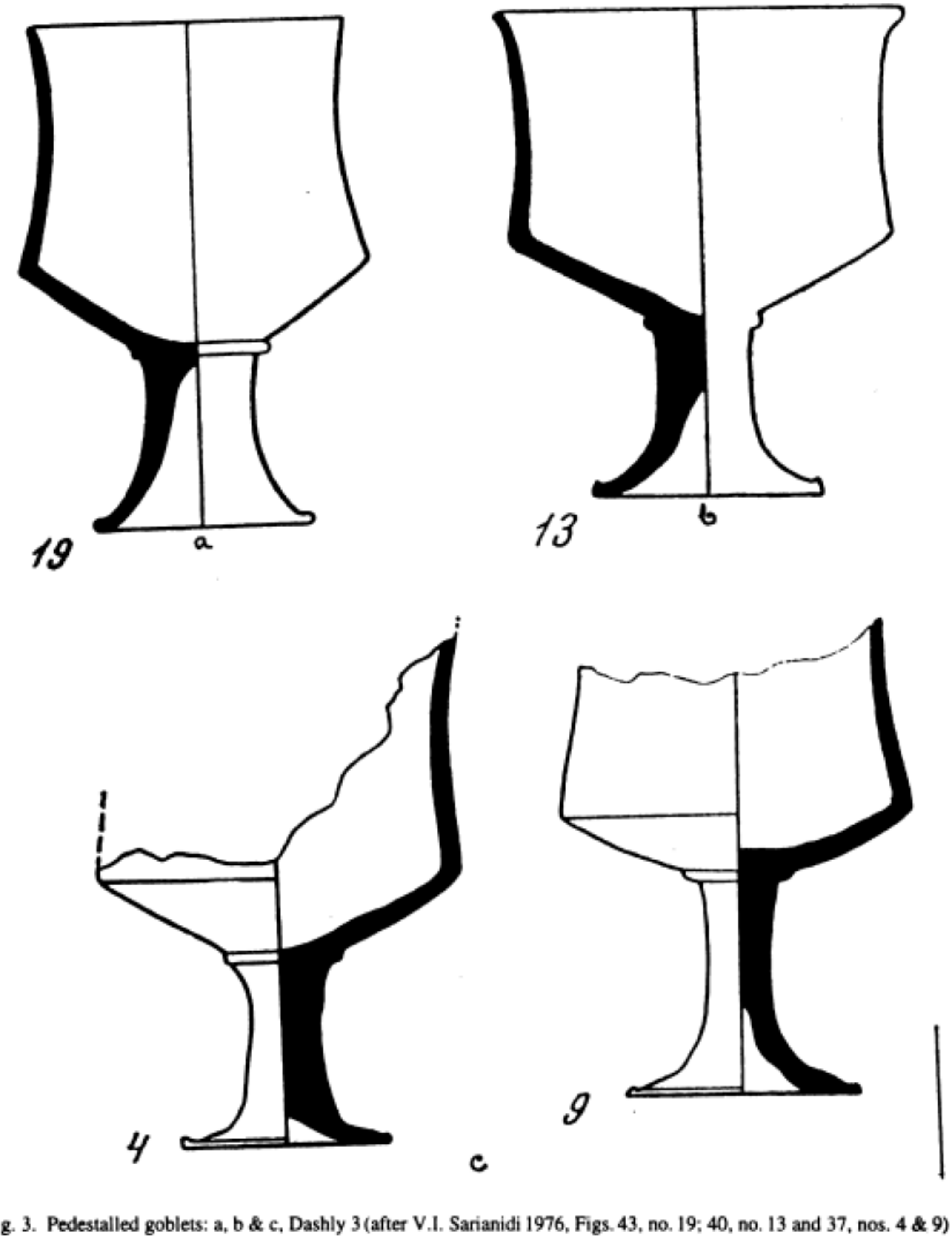

Fig. 3. Pedestalled goblets: a, b & c, Dashly 3 (after V.I. Sarianidi 1976, Figs. 43, no. 19; 40, no. 13 and 37, nos. 4 & 9)

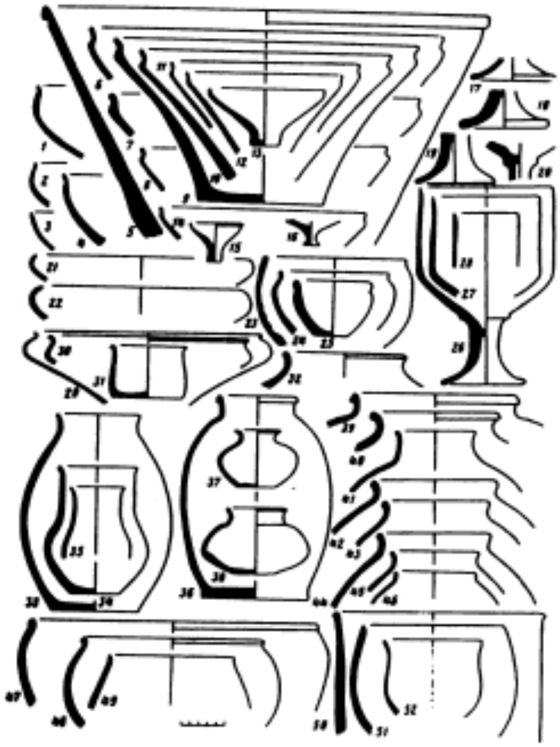

Fig. 3d. Pottery including pedestalled goblets, Murghab settlements (after I.S. Masinov 1981, Fig. 5)

Since it is our aim to test the validity of archaeological evidence for cultural/mercantile contacts we will first view the goblets found in three differently-located groups of tumuli on Bahrain against the recently-published excavations at Mehrgarh in central Baluchistan, Pakistan, and the discoveries from Bactria and Murghab delta of Margiana.

The first item to be considered is the upper part of a 9·1 cm. high wheel-thrown, brick-red coloured rimless goblet, which must originally have stood on a splayed pedestalled foot. It was discovered in the Hamala North tumulus.[36] The cup of this goblet is decorated with a row of five cross-hatched butterfly motifs, inspersed once only by a tree or vegetation design, also painted in plum-red (Fig. 4a, left). This goblet can be dated to the late third millennium B.C. by associated finds, for instance an omega-shaped pin (?) or hold-fast. A type disovered by Bent and Prideaux in mounds at ‘Ali (Mound B and J)[37] and with parallels in Akkadian and Ur III graves in Mesopotamia and at Susa in a comparable chronological context.[38] This late third millennium B.C. date corresponds neatly with a *c.* 2000 B.C. date proposed for Mehrgarh Cemetery VIII.

In connection with our efforts to establish evidence for the trade network it must be mentioned here that the Hamala North tumulus has also furnished a tiny copper/bronze horned animal, probably a goat, standing on a short base with a total height of 2 cm.[39] (Pl. 10.3). It may have been the theriomorphic head of a pin, but it seems more likely that it once served as an ornament to be sewn on to a garment, since a loop-attachment has been soldered to one side of the animal. Recently I have proposed treating this tiny bronze as a possible Harappan import,[40] but in the course of our survey of the pedestalled goblets, it may become clear that a Murghabo-Bactrian provenance is far more feasible. Cosmetic pins with theriomorphic heads occur frequently and in a great many different styles and shapes in Bactria and Margiana[41] (Pl. 10.4) and the great wealth of Central Asian objects of the Quetta deposit or Quetta Treasure in central Baluchistan, Pakistan, also included two gold bull-shaped pendants with a loop-hole soldered onto the unfinished back.[42]

Additional support for a possible Central Asian affinity of the copper/bronze goat figurine from Bahrain comes from the Arabian Peninsula. Three pendants or repoussé plaques made of gold or electrum representing two-headed and two-torsoed caprids, decorated with incisions, in two cases with a reinforcement of the legs by one or a pair of additional legs and fitted with hooks or loop-attachments at the back, a repoussé plaque thought to represent a lion (?) and a silver bull figurine are reported from the Wadi Suq long grave at Qatarrah (Abu Dhabi), United Arab Emirates[43] (Pl. 10.5). Furthermore, two complete pendants and one fragmentary one, portraying two goats standing back to back, have come from Site 99 at Shimal and Site 2 at Dhayah (Ras al-Khaimah)[44] and an electrum pendant in the shape of two-headed and two-torsoed goats or caprids with hooks on the concave back, with the legs reinforced by an extra coating of silver and thought by the excavator to have been hammered over a convex mould has been discovered in a collective long tomb at Bidya 1 (Fujairah), U.A.E.[45]

Difficulties in identifying the provenance or the source of inspiration for these pendants have led Kästner[46] to refer to a handle of a borer in the shape of two animals standing back to back and originating from Poliochni on Lemnos and Potts[47] to refer back to the copper/bronze goat figurine from Hamala North, Bahrain, without drawing any further conclusions and to the fact that 'Further parallels which might be cited include three copper-alloy figurines of mountain sheep, no more than 4·2-4·8 cm. in height, which were recently published by H. Pittman (H. Pittman, *Art of the Bronze Age*, New York, 1984). These pieces, presumably from Central Asia, are difficult to date, but probably belong to the late third or early second millennium BC.'[48]

Walid Yasin Al Tikriti mentions 'Despite the difficulties in identifying the source of these pendants, we should not exclude the possibility of local production as an increasing number of them has come to light over the past few years from tombs dating

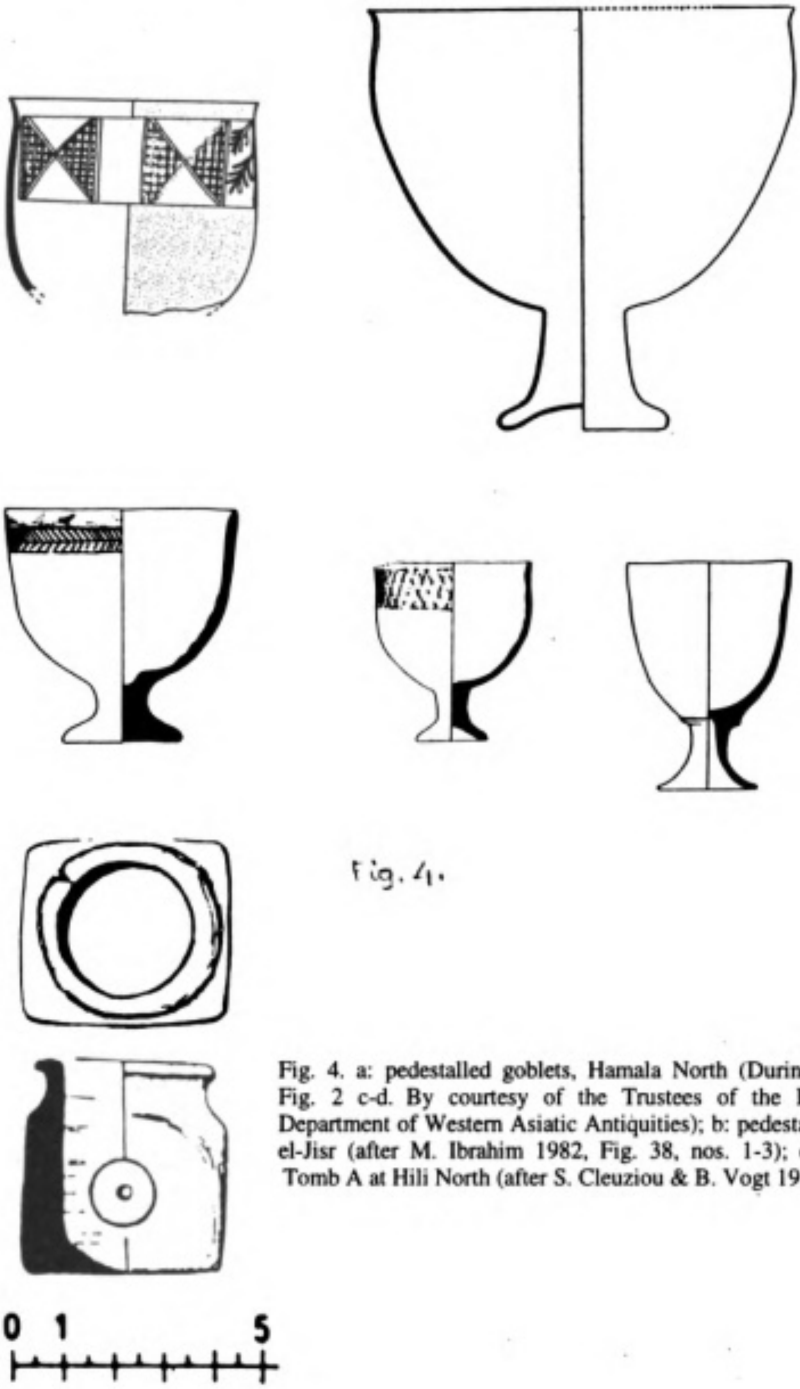

Fig. 4.

Fig. 4. a: pedestalled goblets, Hamala North (During Caspers 1980, Fig. 2 c-d. By courtesy of the Trustees of the British Museum, Department of Western Asiatic Antiquities); b: pedestalled goblets, Sar el-Jisr (after M. Ibrahim 1982, Fig. 38, nos. 1-3); c: chlorite flask, Tomb A at Hili North (after S. Cleuziou & B. Vogt 1985, Fig. 4, no. 5) to this period,'[49] i.e. the Wadi Suq period. Although the use of animals (goats, Pamir sheep, bulls, dogs, birds etc.) is well attested in the Murghabo-Bactrian art and animals play a prominent role in the stone and copper/bronze stamp and cylinder seals as small three-dimensional models and yet again as decorative heads of the innumerable cosmetic sticks and spatulas which have a wide dispersion area, the occurrence of protomes of animals, primarily caprids is relatively rare, both in the ornamental decoration of the pinheads of the cosmetic sticks and spatulas as well as on the outside of copper/bronze cosmetic jars. Yet they are undeniably an inherent part of this Central Asian culture. The fact that the goat figurine from Hamala North, Bahrain, is not concave at the back like the two-headed and two-torsoed goats or caprids and the repoussé plaque in the shape of a lion (?) from Abu Dhabi, Ras al-Khaimah and Fujairah in the United Arab Emirates, or the two gold bull pendants from the Quetta deposit in central Baluchistan, though it does share the presence of a loop-attachment soldered onto one side with these others, does give me cause to wonder whether the Bahrain goat is not, in fact, a theriomorphic head of a cosmetic pin, since in Bactria and Margiana these tiny animal figurines invariably stand on a base which is a part of the pin itself. The loop-attachment could have been soldered on later, but as this tiny piece is badly corroded there is a very small chance of ever being able to prove or disprove this suggestion. In the light of our pending discussion on Arabian Gulf material with a distinct Bactrian Margianan flavour, but apparently locally manufactured in the different Gulf areas themselves, I feel, that we should take Walid Yasin al-Tikriti's notion of a possible local production of the gold, electrum and silver pendants from the United Arab Emirates into serious consideration and view them as being of local workmanship but quite emphatically influenced by the Central Asian animal art. For the time being, the copper/bronze goat figurine from Hamala North, Bahrain, should be treated likewise.

To return to the pedestalled goblets from Bahrain. Secondly, three red-slipped, glossy pedestalled goblets have also been discovered in the course of the rescue dig near 'Ali on Bahrain mounted by the Danish Expedition between 1961 and 1962.[50] All three goblets (Pl. 10.6) show the characteristic thickened plastic ridge at the junction of the cup and the splayed stem and two of them are decorated with cross-hatched, upturned triangles in black with single rows of horizontal dashes between them. The third appears to have been left undecorated.

Thirdly, three more pedestalled goblets have recently been found by the Arab Expedition at Sar el-Jisr (Fig. 4b), also on Bahrain and all three discovered in Type 1 mounds, characterized by a single burial.[51] These mounds are built above the surface of the ground with a ringwall and contain a burial chamber with one or two alcoves. Two of these goblets were found in the same mound (S-100). The third example was found singly (S-54). One of the two goblets from tumulus S-100 has been described as being of dark grey-black ware with glossy burnishing and turned on a wheel.[52] It has an elongated cup, and a thickened plastic ridge at the function between the cup and the hollow splayed concave foot. In fact it is a close counterpart of the red burnished goblet from Mehrgarh Cemetery VIII in central Baluchistan, Pakistan (Pl. 10.1). The other two goblets from Sar el-Jisr are said to be of the same red ware type of the three 'Ali examples. The smaller of the two, from the same burial S-100 as the unpainted grey-black burnished goblet, shows a fairly broad zone of criss-cross hatching or a net-like design executed in black paint under the outer rim. The shorter, less splayed foot is only partly hollow. The larger goblet from tumulus S-54 shows a herring-bone pattern in between two parallel lines executed in black below an indistincly-painted row of fish (Fig. 4b).

Although in both these cases the diagnostic plastic ridge at the junction of cup and stem is absent, and, in addition, the goblet from S-54 has a completely solid, low foot, the fact that both are manufactured in fine red clay and also resemble the other goblets under discussion in general appearance, warrants their inclusion in this easily-distinguishable group of Bahrain burial pottery.

Fourthly, fragments of very fine reddish slipped stemmed goblets decorated under the rim with a zone of either stylized caprids or gazelles, painted in black on a whitish background, were discovered in the levels 19, 17 and 15 of City II at the Qala'at al-Bahrain (Northwall sequence?).[53] These levels date to the late Akkadian, Ur III and Isin-Larsa periods (*c.* 2200-1800 B.C.). Since these pedestalled cups appear to match those from Hamala North, 'Ali and Sar el-Jisr, this could be an important step towards a chronological correlation between City II of the Qala'at al-Bahrain and a certain group of grave mounds.

In the fifth instance we are presented with the possible presence of pedestalled goblets in one of the Suq-Sunaysl graves in Oman, dated to about 2000 B.C.[54] These would provide a chronological link with the Bahrain goblets on the one hand and with a small chlorite flask of Murghabo-Bactrain origin from Tomb A at Hili North, U.A.E. on the other (Fig. 4c), since the assemblage of Tomb A at Hili North indicates a rather safe chronological mark, *viz.* the 21st or, at the earliest, the late 22nd century B.C.[55] Here it should be emphasized that the small chlorite flask from Tomb A at Hili North with its short circular neck and decorated with a dot-in-circle design on its four square sides is a unique find in the Arabian Gulf. Although four-sided chlorite flasks or flacons occur in an amazingly unlimited number of shapes and adorned with a great many decorative patterns in the Bactrain world (Fig. 5a) and further south at, e.g. Susa[56] and at Shahdad,[57] while nearest to the Iranian coast, another two fragments were discovered at Tepe Yahya, Period IV B;[58] they have been reported neither from Makran nor from Pakistani Baluchistan (Shahi Tump, Kulli, Mehi).

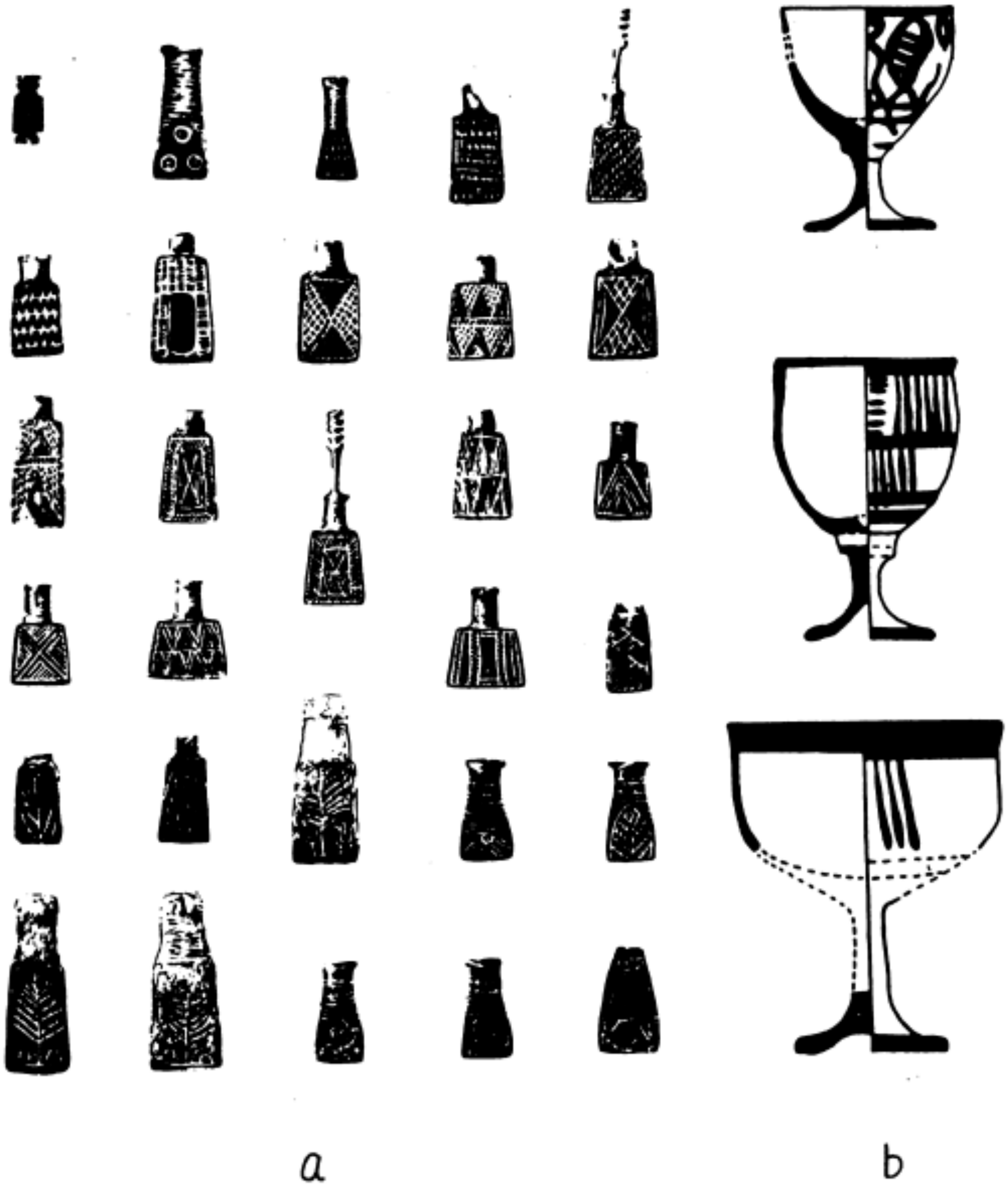

Fig. 5.a: Chlorite flasks from Bactrian graves (after M.-H. Pottier 1984, Fig. 21); b: pedestalled goblets, Dhahran tumuli (after J. Zarins 1989, Fig. 13, nos. 6, 12 and 18)

Still a steatite stamp seal from Tepe Yahya IV B[59] and a copper/bronze stamp-seal from Bampur IV, 2-3[60] with close parallels in Bactria and Margiana[61] underline yet again the contacts between the Bactrian cultural sphere of influence and the northern coastal areas of the Arabian Gulf. This will then become more clear when discussing the Bactrian parallels from some of the Khurab burials and from two burial deposits at Mehi.

To return once again to the pedestalled goblets from Bahrain. The next find to be considered, representing a sixth example, is a small group of pedestalled goblets with a distinct joint between the upper bowl section and the splayed foot, decorated with a simple painted pattern of vertical and horizontal lines, which were discovered in the Dhahran tumuli of Saudi Arabia[62] (Fig. 5b). They provide another chronological check. Zarins correlates this moundfield with the City II occupation on Bahrain, which would place the date of these goblets towards the closing stages of the third millennium B.C. Furthermore, the close parallels with the pedestalled goblets from the Mehrgarh VIII Cemetery and from Bactria and Margiana almost certainly point to a Central Asian connection for this type of ware, although a local production of the painted goblet variety from Saudi Arabia, from the tumuli at Hamala North, 'Ali and Sar el-Jisr on Bahrain and in City II of the Qala'at al-Bahrain, and the ones from Oman, cannot be ruled out. This notion is strongly corroborated by the fact that in all its diversity, the pottery from Bactria and Margiana have one characteristic feature in common, they are void of any painted decoration.

Having reviewed finds of pottery goblets, we will now discuss discovery of the same type of object in metal. An 18-cm. high rimless copper/bronze goblet on a short, hollow, cylindrical stem with a splayed foot and a concave base was also discovered in the tumulus at Hamala North on Bahrain[63] (Pl. 10.7 and Fig. 4a). It has been carefully positioned by some stones at its base, possibly to prevent it tipping over. This suggests that it once contained some sort of liquid, perhaps beer or wine, both known in the ancient Near Eastern texts. Unfortunately the goblet is too corroded to permit analysis of its inner surface. So far this is the only published goblet of its kind from the Arabian Gulf area and Ibrahim[64] has suggested that metal goblets either preceded those made of pottery or else that both varieties were contemporaneous.

The emergence of evidence of a local copper production on Bahrain would demolish the argument that we can consider the copper/bronze goblet only as a direct import piece and, in the absence of any metal analysis tests we can, for the moment, only surmise that either a Murghabo-Bactrian prototype may have been used in the local production of this copper/bronze pedestalled goblet from the Hamala North grave mound or that we are, indeed, dealing with an actual import. In fact, another copper/bronze goblet, said by C.S. Phillips to look identical to the one from Bahrain, was found in the Emirate of Ras al-Khaimah together with a typical Bactrian weapon.[65]

Among the gold vessels from the Fullol hoard in Badakhshan of north-east Afghanistan is the bowl section of a pedestalled gold goblet, of which the lower part of the stem is missing[66] (Pl. 10.8). However, a distinctive thickened ridge at the junction of the cup with the beginning of the stem is clearly visible. The decoration consists of an embossed geometric pattern. A similarly-shaped pedestalled goblet, also in gold and pertaining to the Quetta deposit[67] (Pl. 10.9), also shows a pronounced thickened embossed ridge between the bowl and the stem and its shape closely resembles the pedestalled plain ceramic goblets from Mehrgarh, Period VIII.

The copper/bronze goblet from Hamala North has no thickened ridge, but this is also the case of the two painted pedestalled goblets from the Sar el-Jisr moundfield. The painted cup section of the goblet from Hamala North is broken off just above the point where one would expect to find a distinctive joint, should there have been one, and similarly the goblet fragments from the City II levels at the Qala'at al-Bahrain do not permit a reliable reconstruction either. However, the painted pottery goblets from 'Ali and from Dhahran do have this distinct ridge.

Although, as stated above, this absence of a ridge may be an indication of a local initiative having been taken in production, comparable to the addition of a painted decoration on some of the Arabian Gulf goblets which is definitely non-Bactrian. Besides, both the Murghab delta region and Bactria show in their pedestalled earthenware goblets various types which do not have this distinct ridge under their cup section.

Large collections of copper/bronze—and to a far lesser extent of gold and silver—goblets and vases of different shapes, displaying a high artistic competence, are known to have come from the plundered graves in Bactria, but as long as we do not have a published corpus of the metal vessels from Bactria and Margiana, we have, as yet, to refrain from any conclusive analysis.

Close parallels between the Margiana lowland and Bactria and certain pottery finds from the burial site of Khurab in the Bampur valley and the Mehi cemetery in Pakistani Baluchistan, to which detailed references will be made in the course of this contribution to the late N. G. Majumdar, may provide us with a safer base regarding the copper/bronze discoveries from Khurab and from Fanuch and Damba-Koh in Iranian Makran. Moreover, a detailed examination, if such is still possible, for instance, of the copper/bronze vessels and other metal objects from the Khurab burials may provide more parallels with the Central Asian materials. Nevertheless, here I would like to draw attention to the fact that in burial E.i. at the latter site a bronze/copper cup section of what looks to have been a pedestalled beaker (Khur. E.i. 251)[68] was found together with the famous metal hatchet surmounted by a seated Bactrian camel. At Damba-Koh Sir Aurel Stein discovered a copper/bronze high-stemmed beaker with a splayed foot, a shallow straight-walled cup and with a flat horizontal rim (Dam. 11.iii. 68) which, to judge by the photograph, appears to have parallels in Bactria.[69]

Reference should be made here to the contents of a grave at Qidfa, Emirate Fujairah, U.A.E., excavated by the museum of Al-Ain, Abu Dhabi, U.A.E. This grave has been dated by its contents to the second and the first millennia B.C. An important collection of bronze objects included daggers and open bowls and judging by the photographs published by P. Corboud [*Archaeological Survey of Fujairah, 1 (1987)* 1988, Figs. 4-7] the copper/bronze bowls are not unlike the one, illustrated by Stein 1937 (Pl. XVIII Khur. D. 247), which has a disc base. Other possible comparisons are Khur. B.ii. 216, 218.

In the light of the foregoing we will consider other additional indications of a possible contact between the Arabian Gulf and the Murghabo-Bactrian world, having resulted sometimes in local imitations in the Gulf areas.

The first item to come under consideration is a type of chopping-knife which occurs at Sapalli-tepe, in southern Uzbekistan, *viz.* ancient Bactria, and at Togolok 21 in Margiana.[70] It is also discussed by Pottier in her Catalogue of material from plundered graves in Bactria.[71] Somewhat-similarly shaped copper/bronze objects have been discovered at Hili North in Grave A, U.A.E.[72] and in Burials 148 and 117 of the Burial Complex at Sar el-Jisr.[73]

Next we should look at the round, square and rectangular pottery containers which have come from the Bactrian graves. The round ones[74] (Pl. 10.10) can be in the shape of a yurt, the lid reproducing the domed roof and the container itself the dwelling part, in imitation of the material of which these yurts were originally made, the outside of the container and the pointed lid are decorated with closely-set parallel grooves applied when the clay was still wet. The rectangular or square pottery containers have an inner division—although not always into two equal compartments. Sarianidi mentions that these pottery containers must have held food and drink for the deceased, whereas P. Amiet refers to them as house-models.[75]

The corpus of chlorite vessels of the Série Récente from the Oman Peninsula, namely Grave A at Hili North, the settlement of Maysar-1, Umm an-Nar Grave 1059, Qatarrah[76] and Tomb B in Ajman[77] as well as from graves in the Burial Complex of Sar el-Jisr on Bahrain,[78] also contains round containers, the sides of which are decorated with closely-spaced, horizontal lines, extending from top to bottom (Fig. 6a).

It would appear that the closely-grooved, round chlorite containers were manufactured locally after pottery prototypes from Bactria. This contention seems to be further corroborated by their concurrence in Grave A at Hili North, U.A.E. with the copper/bronze implements which, I suggested, should be regarded as a chopping-knife as known from Margiana and Bactria and, last but not least, with the small chlorite flask with circular neck and a dotted circle design on each of its four sides, to which reference has already been made above.

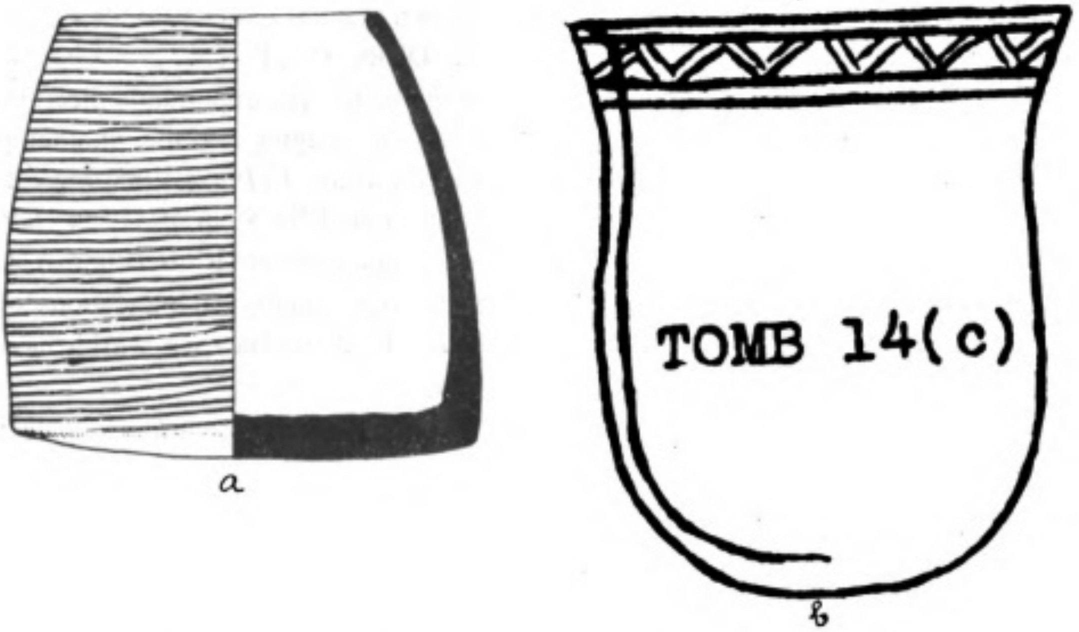

Fig. 6.a: ribbed chlorite vessel, Sar el-Jisr (after M. Ibrahim 1982, Fig. 45, no. 1); b: beaker, ‘Ali, Tumulus 14 (after Mackay 1929, Pl. VII, no. 21)

Although we are confronted with clear evidence of Bactrian contacts in the Oman Peninsula, Bahrain and Saudi Arabia, this does not mean that we can point to any of these areas in particular as having been instrumental in their production. An intricate network of mercantile interaction connecting the Arabian Gulf and South Asia on the one hand and an equally-intricate intercultural intercourse connecting the various Gulf cultures themselves on the other, may be held responsible for the presence of Bactrian and Bactrian-influenced material in the Arabian Gulf.

Some examples may serve to make my point clear. These will also bring us back to Bactrian material from across the Arabian Gulf, namely from the burial site at Khurab in the Bampur valley and from the cemetery site of Mehi in Pakistani Baluchistan.

First we will focus on intercultural or intermercantile contacts in the Arabian Gulf itself.

The chlorite vessel production of the Oman Peninsula, which produced the closely-grooved, round chlorite containers dating to the late third/early second millennium B.C. and to which reference was made above, can also be regarded as the source of the various other chlorite specimens discovered on, e.g., Bahrain. For instance, the compartmented quadrangular pyxes with a comparable date found in the Sar el-Jisr burial mound,[79] a small conical chlorite vessel with four, vertically pierced, small suspension lugs from Qala'at al-Bahrain and a spouted chlorite bowl from the rescue excavations of a burial at Isa Town, both dated to the early second millennium B.C. by P. Lombard and M. Kervran who have published them.[80]

From the largely-unpublished graves at Al-Hajjar in the north of Bahrain comes a number of variously-shaped chlorite vessels, recently published by P. Lombard and M. Kervran[81] and dated to the 10th-8th centuries of the Early Iron Age, which are said to have close parallels in various Early Iron Age sites of the Oman Peninsula and are, therefore, most probably to be treated as imports.

Among the small quantities of painted pottery so far uncovered on Bahrain is a small straight-sided beaker with a sagging base and a narrow band of simple, painted geometric patterns under the rim. It has been reported by Mackay as coming from Tumulus 14 at 'Ali on Bahrain[82] (Fig. 6b). As far as I am aware, this type of beaker is the only specimen so far recorded here. However, it also occurs in the Dhahran Tumuli in Saudi Arabia[83] and in tombs in the United Arab Emirates, i.e. in Ras al-Khaimah at Ghalilah Tomb Shimal 103 and Shimal Tomb 6 and in Fujairah in the long tomb at Bidya[84] (Pls. 10.11 & 12) where it appears to form part of the painted pottery tradition of the early second millennium B.C. at the time of the Isin-Larsa dynasties in Mesopotamia. The Bahrain beaker is, therefore, almost certainly an import from either Saudi Arabia or the Oman Peninsula.

A clear link between Bahrain, the Shimal-Wadi Suq horizon of the Oman Peninsula and Mesopotamia at the time of the Isin-Larsa dynasties, is the occurrence of a suspension vessel with an oval-shaped inner body and almost straight sides on the outside. One example was discovered at Maysar-9, Grave 80, in Oman[85] (Fig. 7a). It bears a painted decoration of horned animals and dot-in-circle motifs, set between two zones of geometric designs. Both decoration and the quality of this vessel justifies a Wadi Suq date and B. Vogt considers this suspension vessel to be an Omani origin.[86]

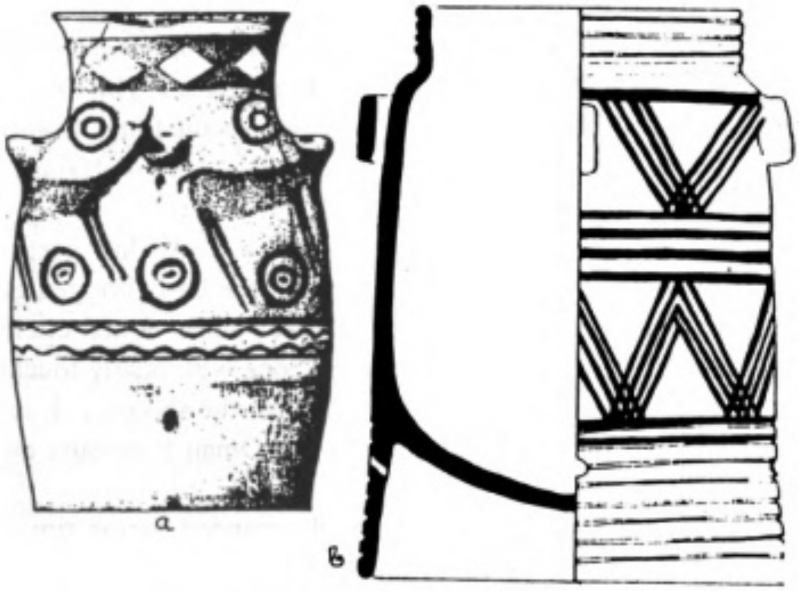

Fig. 7.a: suspension vessel, cemetery of Samad, Oman (after B. Vogt 1985, Taf. 112); b: vessel with suspension lugs, Al-Hajjar, site 2 (?), grave no. 89 (after P. Lombard and M. Kervran 1989, p. 24, no. 33)

A second specimen is a red-slipped vessel with cylindrical walls, an oval-shaped inner body, four small suspension lugs, four small holes in the straight sides and decorated with two multiple zigzag patterns in black set in between single, double and triple lines. It was discovered in 1972 in one of the Al-Hajjar graves [Al-Hajjar, site 2 (?)], grave no. 89 and has been published by P. Lombard and M. Kervran[87] (Fig.7b). One would be inclined to consider this suspension vessel from Al-Hajjar as a possible import from Oman, the more so as the one from Maysar-9 also has four small holes in the straight outer walls to serve as additional supports in the suspension process. However, the horizonally-grooved cylindrical neck—a pattern reocurring near the base of the straight outer walls of the Bahrain example—is so characteristic of the typical Bahrain tumuli pottery, that it seems that a local initiative prevails. The occurrence of a comparable upper portion of a suspension vessel published by J. Zarins as coming from the Dhahran Tumuli underlines this supposition.[88]

A third example, which is also obviously a local Bahrain product, is a dark-grey pottery jar with a comparable shape, but without suspension lugs and supporting holes in its straight walls, found by Mackay in Tomb 5 at 'Ali on Bahrain[89] (Pl. 10.13).

The obvious prototype of the vessels from Oman and Bahrain is a similarly-shaped type of grey vessel with four suspension lugs on the straight shoulder and supporting suspension holes near the base known from Mesopotamia and Susa in Isin-Larsa times, *viz.* the early centuries of the second millennium B.C. This type of vessel bears stamped, punctured and incised designs, both geometric and zoomorphic, which are filled in with white paint[90] (Pl. 10.14 b+c).

Another Early Iron Age (10th-8th cent. B.C.) correlation between Bahrain and the Oman Peninsula, *viz.* Rumeilah (Abu Dhabi), U.A.E. and Hili 2, Hili 5/6, Maysar 36 and Lisq 1 (Sultanate of Oman), can be established by two spouted jugs from Isa Town and Al-Hajjar, site 1, grave no. 2 and a low, footed bowl from Al-Hajjar, site 1, grave no. 9B, all three published by P. Lombard and M. Kervran.[91]

The pottery jug from an unrecorded grave at Isa Town has been described as: 'Spouted jug, with cylindrical neck; round flaring rim; flat base; bridged gutter spout.'[92] The top of the spout is decorated with vertical strokes and a dotted circle in brownish paint and another characteristic feature is a banded zone with nearly touching elongated S-signs interspersed by small solid dots, which decorate the shoulder. It is said to be 'A very distinctive type of shape and decoration in the Oman Peninsula during the Iron Age.'[93]

The spouted jug, with narrow cylindrical neck, rounded flaring rim, flat base, side handle which is circular in cross-section, and a rather developed fan-shaped, bridged spout from Al-Hajjar, site 1, grave no. 2, bears a red decoration consisting of two rows of dot-in-circles on the spout and a row of multiple concentric squares under the spout on the widest part of the body. This spouted jug has also been dated to the Early Iron Age (10th-8th cent B.C.) and is said to have a spout rather similar to one found at Rumeilah (Abu Dhabi), U.A.E.[94]

The low, footed bowl from Al-Hajjar, site 1, grave no. 9B[95] (Pl. 10.15) has been described as made of light red ware with a red slip covering the inside as well as the outside. The decoration in brown-red consists of rows of hanging vertical strokes ("comb"), under the rim on the inside and on the outside of the carinated shoulder. On the inside base of the cup section is a hatched star design alternated by four squiggly lines. Under the foot is an eight-pointed star design. The main decoration covering the entire outside of the cup consists of a row of double-lined elongated S-signs with dot-in-circles in between, which in some cases tend to become ovals divided in two halves by a horizontal line.

However, all the cited parallels, i.e. Hili 2, Hili 5/6, Rumeilah 1 (Abu Dhabi), U.A.E., Maysar 36 and Lisq 1 (Sultanate of Oman) appear to represent flat-bottomed, carinated bowls, without a solid foot comparable to the low pedestalled chalice from Al-Hajjar, site 1, grave no. 9B. Could this possibly suggest that this pedestalled drinking cup is a local Bahrain product, closely imitating the carinated cups from the Oman Peninsula in both the decoration and in the shape of the cup, but distantly still following the pedestalled goblet tradition of Bahrain in the late third-early second millennium B.C.? This could, at the same time, explain the occurrence of the multiple concentric squares on the spouted jug from Al-Hajjar, site 1, grave no. 2, a motif not inherent to the Omani tradition, but possibly related to decorative traditions still lingering on in areas across the Arabian Gulf.

Evidence for the intricate intercultural and mercantile network, to which reference has been made above, connecting the Arabian Gulf and South Asia, is the typical Umm an-Nar "black-on-grey ware" canister jars and the "incised grey ware" pottery. The former are known from the Umm an-Nar tombs, from Hili Grave 1059, Grave M at Hili and Grave A at Hili North (Abu Dhabi), U.A.E., and at ʻAmlah in Oman[96] (Figs. 8 and 9), the "incised grey ware" pottery from Hili-8, phases 11f and 11g, from the Umm an-Nar tombs, Hili Grave 1059, Grave A at Hili, Grave A at Hili North, Grave B at Hili, Grave B at Hili North (Abu Dhabi), U.A.E. at ʻAmlah site 1, Grave 1119 at Ras al-Hamra and unnumbered graves at Baat (Sultanate of Oman)[97] (Fig. 10). The close stylistic connection between the Umm an-Nar "black-on-grey ware" and the "incised grey ware" pottery seems to find its origin in the correlation between these two wares with pottery from south-eastern Iran where both the shapes and the mode of decoration occur in the burnished black-on-grey ware of the Bampur V, 2 and VI Periods and in the incised grey ware of the Bampur IV, 2-VI Periods. De Cardi has noted strong Kulli-Mehi traits in this later Bampur material and the characteristic Kulli-Mehi canister-type pottery

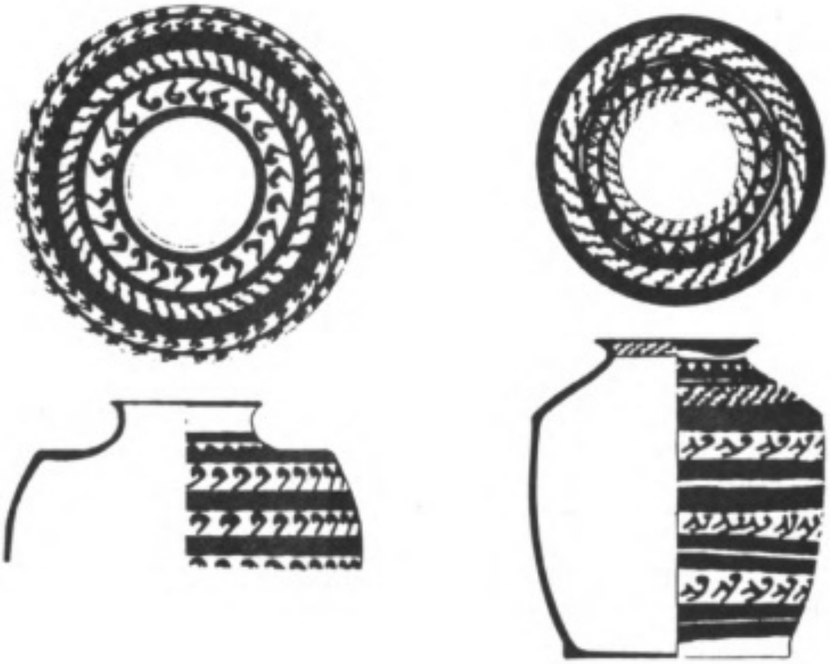

Fig. 8. "Black-on-grey ware canister jars" from Arabian Peninsula and Shahr-i Sokhta (after B. Vogt 1985, Tafel 57)

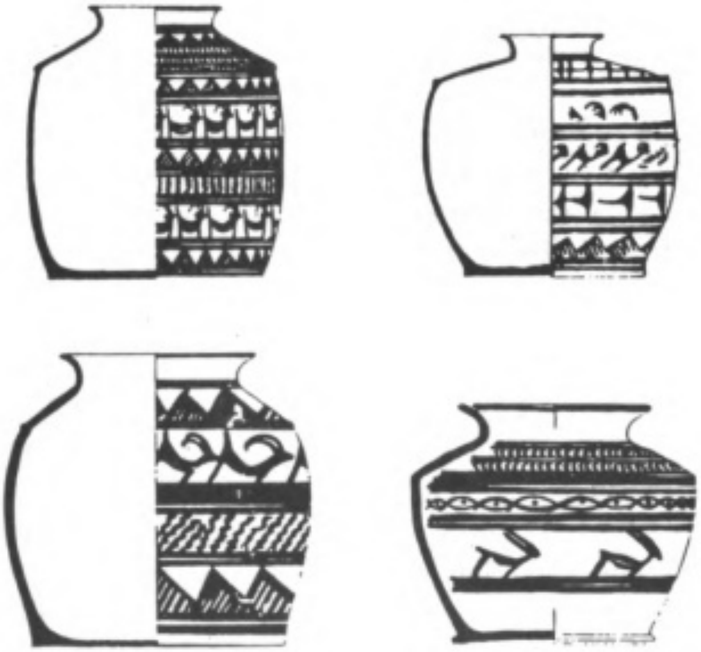

Fig. 9. "Black-on-grey ware canister jars" from Arabian Peninsula and Bampur (after B. Vogt 1985, Tafel 57)

could well have been the prototype of the black-on-grey canister jars of the Bampur V and VI Periods. Recent ceramic analysis of some of the Umm an-Nar black-on-grey ware (Umm an-Nar island, Baat, Maysar and Hili 8) has led R. Wright to consider this pottery ware as a variant of the Indo-Iranian Emir Grey and a south-eastern Iranian origin for the Umm an-Nar black-on-grey pottery has, therefore, been suggested.[98] Nevertheless, the Arabian Gulf may have been under the direct influence of the Kulli-Mehi culture of southern Baluchistan, since the latter shows an unmistakable Murghabo-Bactrian element amidst its otherwise local Baluchistan tradition, hence the occurrence of Murghabo-Bactrian products and concepts in the Gulf.

The Umm an-Nar "incised grey ware" pottery from the United Arab Emirates and Oman, may, as Vogt has suggested, closely imitate shapes occurring in the "black-on-grey ware" category,[99] but, on the other hand, one must be aware of the close comparisons between at least three types of "incised grey ware" pottery from the Umm an-Nar tombs and Grave A at Hili North and incised grey ware from Bampur and Katukan in the Bampur valley. Here we refer to Group 1 of the Bampur incised grey ware, being a small flat-based pot with thin, straight or slightly oblique walls and an everted rim which appears first in Period IV, 2 and continued as the prevailing form to the end of Period VI.[100] This shape can be matched against a similarly-shaped pot

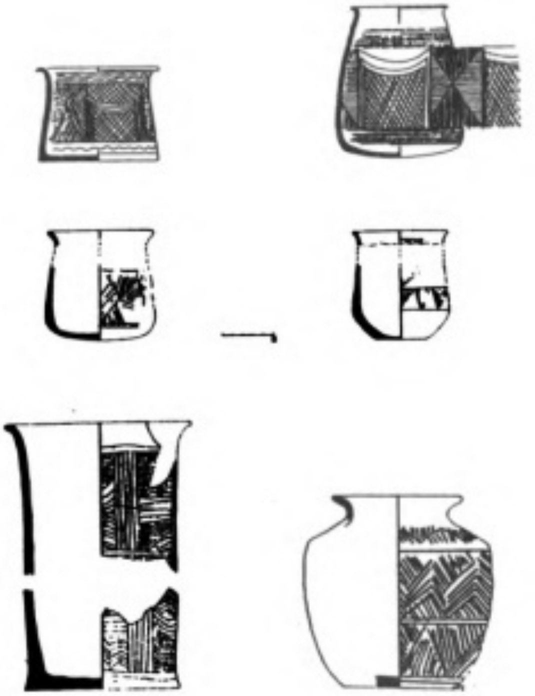

Fig. 10. "Incised grey ware" pots from Umm an-Nar and Hili North (after B. Vogt 1985, Taf. 60)

discovered in Grave A at Hili North in the United Arab Emirates.[101] Group 5 of the Bampur incised grey ware is a wide-mouthed carinated jar with short, everted rim and a flat base,[102] a type also reported by A. Stein from Bampur,[103] which could be compared with a wide-mouthed jar from one of the Umm an-Nar tombs.[104] Group 6 of the Bampur incised grey ware being a tall flat-based jar with almost straight walls converging towards the neck below an everted rim,[105] which was also discovered by Aurel Stein at Katukan to the east of the Bampur valley,[106] compares favourably with an incised grey specimen from one of the Umm an-Nar tombs.[107] Surprisingly this particular shape also occurs both as a painted variety and with a curious foliage design incised in the grey clay.[108] Vogt has remarked with regard to the Bampur incised grey ware "Die incised grey ware"-Keramik wird bisweilen als keramische imitation der Chloritgefässe vom "intercultural style" (="série ancienne") betrachte (During Caspers in B. de Cardi 1970, p. 319). Nach der bisherigen Fundlage führt dies zu einer chronologischen unstimmigkeit, da man entwicklungsbedingt ein zumindest partielle zeitliches Überlappen beider Materialgruppen voraussetzen muss. Auf der Halbinsel Oman taucht die "incised grey ware" immer gemeinsam mit den Steingefässen der "série récente" auf. Das Problem löst sich aber, sobald man die chronologische Laufzeit der "série ancienne" bis in die späte Umm an-Nar-Zeit ausdehnt. Die Funde aus Grab A in Hili Nord könnten für diese Annahme Argumente liefern."[109]

Recently[110] I have pointed to the possibility that Group 1 of the Bampur incised grey ware, which is, after all, the prevailing form from Periods IV, 2 to VI, has been influenced by similarly-shaped flat-based pots with straight or slightly concave walls and an everted rim and fashioned in chlorite which have been discovered in both Bactria and Margiana. Also the design of triangles with points placed alternately up and down occurs in the Murghabo-Bactrian cultural sphere of influence. This notion is corroborated by the discovery of two cylindrical chlorite or steatite flat-based pots with concave profile on Tarut and dated by D. T. Potts[111] to the late third millennium B.C., perhaps *c.* 2300-2100 B.C., which I feel could be either Bactrian or else Bactrian-influenced.

The presence of Murghabo-Bactrian pottery types and metal and other artefacts in some of the Khurab burials, at Damin, Katukan, Damba-Koh and Fanuch, appears to warrant a Central Asian correlation with the incised grey ware pots of Group 1 at Bampur IV, 2-VI, fixing at the same time, date of Bampur IV, 2-VI to the late third and the early centuries of the second millennium B.C. This date can be substantiated by the occurrence of an incised grey ware flat-based pot with slightly oblique sides and an everted rim in Grave A at Hili North (Abu Dhabi), U.A.E. (Fig. 10a). The decoration consists of a "hutpot" design characteristic of the vessels of the "série ancienne" which underlines Vogt's suggestion of a chronological continuation of the "série ancienne" into the late Umm an-Nar period.

Grave A at Hili North appears to display an extraordinary array of different cutural contacts with the areas across the Arabian Gulf and in this light the occurrence of two flat-based jars with almost straight sides converging towards the neck below an everted rim and resembling Bampur Group 6 does not come as a surprise. We have already referred to this type of incised grey ware and mentioned that similarly-incised grey jars have been found by Aurel Stein at Katukan, where they are decorated with the well-known "hutpot" pattern, and that a comparable shape, also incised with a rather sloppy "hutpot" pattern, has been discovered in one of the Umm an-Nar tombs. The two from Grave A at Hili North follow the ones from Umm an-Nar, Katukan and Bampur in shape, but not in decoration, for one has a painted decoration and the other one, although fashioned from grey clay, bears a zone with a floral design (imitation of a *pipal*?) bound below by a row of vertical ovals.[112] Finally it should be stressed that it is Grave A at Hili North which has furnished reddish pottery decorated with black designs which appear to be inspired by the Baluchistan pottery tradition, or can be described as Indus-related.[113]

In 1985 Cleuziou and Tosi have stressed that the Umm an-Nar culture can be bracketed between *c.* 2700-2000 B.C.[114] and now Cleuziou proposes a date of 3000-2700 B.C. for Hili 8, Period I.[115] A recently-suggested initial date for the late Kulli period, *viz.* the Niai Buthi II phase, is as early as *c.* 2800-2600 B.C.,[116] whereas the final stage in the late third millennium B.C. can be recognized in the cemetery of Mehi in District Las Bela presently to be discussed, would make this late Kulli culture with its characteristic canister-type pottery mentioned above, *grosso modo* contemporaneous with the Umm an-Nar culture.

In the light of the foregoing a chlorite canister jar of the "série ancienne" from Tarut in the Arabian Gulf is relevant. This squat pot is decorated with a band of symmetrically-opposed, hatched triangles on the squarish shoulder and a closely-knit herring-bone pattern on its body, which is dated by D.T. Potts to the late third millennium B.C.[117] I feel that this soft-stone canister jar could well be a product of the Umm an-Nar—Bampur—Kulli/Mehi connection and Potts' late third millennium B.C. date, although arrived at on different grounds, ties in satisfactorily with what we so far have been discussing.

Although the published data from both Pakistani Baluchistan, *viz.* the Kulli-Mehi sites and the cemetery of Shahi Tump and from the Bampur valley such as the Khurab cemetery, Fanuch and Damba Koh, are totally incomplete and inadequately published, Kohl and Pottier[118] emphasize that contrary to the theory of the possible arrival of Central Asian peoples at Mehrgarh, Sibri, Quetta and now also at Dauda Damb and possibly other sites in the Kachi Plain of central Baluchistan, the supposition of a large-scale movement of Central Asian peoples into the Bampur valley in Pakistani Baluchistan cannot be supported by the present archaeological evidence. They suggest the Murghabo-Bactrian materials, to which we will turn shortly, might be more economically explained as resulting from contacts, possibly established during annual migratory cycles, with new peoples now living immediately to the north in central Baluchistan and on the edge of the Dasht-i-Lut. The continuity of materials in the local tradition manifested both at the Bampur sites and in Pakistani Baluchistan certainly lends weight to their suggestion. But it still remains to be seen whether the latter or the Bampur valley region did indeed afford an easy corridor for the cultural and economic contacts with the Arabian Gulf. Therefore we should take a closer look at the finds from these two areas. I have decided, however, not to include the cemetery of Shahi Tump, since the Murghabo-Bactrian objects discovered by Aurel Stein are, on the whole, of a different nature to those found at Mehi and at Khurab, Damin, Fanuch and Damba-Koh in the Bampur valley area. We will, therefore, concentrate on the former two sites.

The funerary deposits 11 and 111 at Mehi, on which Aurel Stein has reported,[119] consisted either of simple cremation remains or of ashes and remains of bones of completely-cremated bodies in cinerary urns,[120] a custom not comparable to the Murghabo-Bactrian practice of placing the body in a shallow pit in a flexed position. They were, however, accompanied by several objects of Bactrian provenance. It would be tempting to explain these recorded data as burials of persons of Bactrian descent who had to comply with a non-Bactrian, perhaps local practice, of cremation or had been converted to the local religion.

A copper/bronze mirror with an anthropomorphic handle from Mehi burial deposit 11(2.1.a)[121] (Pl. 10.16) is the only example of its kind so far found outside its homeland Bactria (Pl. 10.17) and, therefore, places the anthropomorphic bronze handle of a mirror in the shape of a small naked male figurine, very much in the ancient Sumerian tradition, from the Barbar Temple IIA on Bahrain in its proper perspective[122] (Pl. 10.18). It stands on a curved base, the foot of which has two rivet holes and a slot, and points to a cultural interplay between Mesopotamia, the Dilmun culture of Bahrain, the Kulli-Mehi culture of southern Baluchistan and the Murghabo-Bactrian cultural environment. However, it is a misconceived copy, for the functional artistry of the copper/bronze mirrors from Mehi and the Bactrian graves, which have a handle representing a stylized female figure, is entirely lacking in the one from Bahrain. In the case of the mirrors from Mehi and Bactria, the head of the stylized figure is provided only by the reflection of the face of the user of the mirror, but the Barbar figurine has to be turned upside down in order to use the mirror properly.

From the same burial deposit as the large copper mirror with a handle in the shape of a stylized figure, arms akimbo, comes a copper pin with a large, neatly-worked head in the shape of a stamp seal (Mehi. 11.2.2.a)[123] (Pl. 10.16), a type often encountered in Bactria, *viz*. southern Uzbekistan, at the sites Sapalli-tepe and Mullali.[124] This type of pin also occurs, for instance, at the cemetery of Damin,[125] whereas a bird-headed, single and double-looped and button-headed pins come from cenotaphs at Mehrgarh VIII,[126] the latter categories also of Murghabo-Bactrian origin. A single-looped pin was also discovered at Kulli (Kul. 1.1.8.a).[127]

A second copper pin with a head formed by a lapis lazuli bead was discovered in Mehi deposit (111.6.9)[128] (Pl. 10.16). The lapis lazuli head of this pin points to a Bactrian source of inspiration, if not to a Bactrian origin.

Another important discovery in burial deposit (111.6.18) at Mehi was a stamp seal thought by Stein to have been carved of bone[129] (Pl. 10.19). This bone (or perhaps alabaster?) stamp seal is of particular interest because it is of a type known from the Bactrian-Margiana cultural complex, being almost identical to a series of stamp seals in the shape of a star or a flower and made of stone or alabaster[130] (Pl. 10.20).

The burial deposit 111 (.6) at Mehi has also produced a large unpainted red goblet with a wide, shallow open cup section with rounded sides and a high widely-splayed foot, as well as a triple set of truncated conical bowls with clipped and indented rims (Mehi. 111.6.13 and Mehi. 111.6.2 & 3)[131] (Pl. 10.21 & 22). They have extremely close, almost identical parallels in Margiana at, for instance, the Kelleli oasis at Gonur 1 and Togolok 1, 21, 24 and in Bactria, for example, at Sapalli-tepe and at Dashly 1 and 3,[132] where both types come in a great variety of shapes and sizes and with varying profiles and rim details (Pl. 10.23 and Fig. 3d).

At this point we have to turn our attention to the Bampur valley, to the cemetery at Khurab, which has already been mentioned in connection with our discussion of the pedestalled goblets from the Arabian Gulf. The burial custom at Khurab differs from the cremation practice prevailing at Mehi and shows instead what looks like fractional or secondary burials.

The burial L.i. at Khurab, which has furnished the straight-walled pedestalled goblet already referred to (L.i. 278) (Pl. 10.2), also contained a close counterpart of the chalice cup on a high widely-splayed foot discovered at Mehi (Pl. 10.21). This pedestalled chalice (L.i. 279)[133] (Pl. 10.24; see also Figs. 1 & 3d) was also made of red clay. From the same burial L.i. at Khurab came what Stein has described as a "flowerpot", which is, in fact, one of the varieties of truncated conical cups or bowls with clipped and indented rims particularly common in the Murghabo-Bactrian pottery corpus[134] (Pl. 10.25; see also Figs. 1 & 3d).

To the same series of truncated conical cups or bowls belong those discovered in Khurab burials D (D. 245, 246), E.i. (.256) and F.i. (.267).[135] A detailed examination, if such is still possible, as we have already said earlier, of the bronze/copper and alabaster vessels and other metal objects from the richly-furnished Khurab burials would certainly be rewarding in providing more parallels with the Central Asian materials.[136] One example, not illustrated, may serve to underline this suggestion. Aurel Stein mentions in passing that in Burial L.ii (?) at Khurab he found a large flat plaque which might have formed a part of a mirror.[137]

When we return once more to the cemetery at Mehi in Pakistani Baluchistan, we find that burial deposit 111 also contained a thin copper disc, which Stein thought was probably a mirror (Mehi. 111.6.5)[138] (Pl. 10.16). Taking these two accounts into serious consideration we may well have two more Murghabo-Bactrian mirrors, in this case the type without a handle.

Finally from burial deposit 11 (.7) at Mehi emerged a rim-fragment adorned with an animal with a pendent tail, presumably a dog[139] (Pl. 10.26). This animal is crudely fashioned in clay and its four feet have been placed on either side of the rim.

Bactrian graves in the north-west Afghan province of Balkh and sites in the lower Murghab delta, *viz.* Margiana, have provided vessels with straight walls and a low ring base, thrown from red clay and with a cream-coloured slip. They are decorated with snakes crawling on the inside and over the rim and also seals, horned animals, possibly zebus, as well as other animals less readily identifiable, and human beings, all having a place on the rim.[140] This type of vessels decorated with human beings and animals modelled on the rim was apparently quite popular and they are regarded by V.I. Sarianidi as having served an important cultic and deep religious purpose. A complete vessel with a similar plastic decoration was discovered in Margiana in the site complex of Togolok and again shows seals, possibly wolves, birds (?) and human beings[141] (Pls. 10.27 & 28).

The rim-fragment from burial deposit 11 (.7) at Mehi (Pl. 10.26) with its plastic decoration in the shape of a dog (which meanwhile has also come to the notice of V.I. Sarianidi, who incorporates it in his recent 1990 publication), may, therefore, illustrate that even this rather special type of pottery has found its way to southern Baluchistan. This presents us with the intriguing, but rather speculative question of whether the cultic and religious ideas of the Murghabo-Bactrian world had also travelled to southern Baluchistan and to the Bampur valley region. Still we are left with a fascinating emerging pattern of contacts throughout a wide area in the late third and early second millennium B.C.

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89. Mackay 1929, Pl. VII, no. 12 (Tomb 5); During Caspers 1972-74, Pl. XVIIe.
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123. Stein 1931, p. 158, Pl. XXXII Mehi, 11.2.2.a.
124. Askarov 1977, Pl. XL, nos. 8-10, 13 (Sapalli-tepe), Pl. LXVII, no. 1 (Mullali); see also Sarianidi 1986, pp. 177-184 for a discussion of the various types of decorated pins from Bactria.
125. M. Tosi 1974, 'Bampur: A Problem of Isolation', *East and West*, 24 (1-2), Figs. 20-21.
126. Santoni 1984, Fig. 8.1. A, C. On page 54 Santoni mentions: 'The bronze objects found in the cenotaph area include ear-rings and bangles, pins [double-spiral-headed, bird-headed (Fig. 8.1.C.), and button-headed], cosmetic bottles (Fig. 8.1.A), and toilet objects (mirrors, scissors(?), blades

or spatulae. These are all types known from Bactria and Margiana (Askarov, 1977: Plates XXVI-XXVIII, XXXVII, XLI; Sarianidi 1977).'

127. Stein 1931, Pl. XXII Kul. 1.i.8.a.
128. Stein 1931, pp. 157-158, Pl. XXXII Mehi. 111.6.9.
129. Stein 1931, p. 158, Pl. XXXI Mehi. 111.6.18.
130. Sarianidi 1986a: Chapter VI, pp. 221-295, esp. Pl. 86; Sarianidi 1990: Pl. XXXI, Togolok 9, 21, 24, Gonur 1.
131. Stein 1931, p. 158, Pl. XXX Mehi. 111.6.13, Mehi. 111.6.2, Mehi. 111.6.3.
132. E.g. Askarov 1981; Masimov 1981; Pyankova 1989; Sarianidi 1976; Sarianidi 1990.
133. Stein 1937, p. 121, Pls. XV Khur. L.i. 279, XXXII, no. 9.
134. Stein 1937, p. 121, Pls. VI Khur. L.i. 276, XXXIII, no. 15.
135. Stein 1937, p. 123, Pls. XV Khur. D. 245, Khur. D. 246, XVI Khur. E.i. 256, Khur. F.i. 267.
136. Reference should be made to the contents of a grave at Qidfa, Emirate Fujairah (U.A.E.) excavated by the museum of Al-Ain, Abu Dhabi. This grave has been dated by its contents to the second and first millennia B.C. An important collection of bronze objects included daggers and open bowls and judging by the photographs published by P. Corboud (*Archaeological Survey of Fujairah, 1 (1987)*, 1988, Figs. 4-7) the copper/bronze bowls are not unlike the one illustrated by Stein 1937, Pl. XVIII Khur. D. 247 (which has a disc base). Other possible comparisons are Khur. B. ii. 216, 218.
137. Stein 1937, p. 122.
138. Stein 1931, p. 158, Pl. XXXII Mehi. 111.6.5.
139. Stein 1931, Pl. XXXI Mehi. 11.2.7.a.
140. Sarianidi 1986a, pp. 116-143, Pls. 32-35, Fig. on page 138 (Togolok); *Id.* 1990, Pls. XII, nos. 6-7 (Togolok 21), LXXIV (Togolok 21), LXXV (Togolok 21), LXXVI, nos. 2-3 (Togolok 21), LXXVII (Gonur 1).
141. Sarianidi 1986a, Pls. 32-35.

11

Notes on Bronze Age Bactria and India

Martha L. Carter

One of the most spectacular advances in the field of archaeology in the past two decades has been the discovery of Bronze Age Bactria as the centre of a distinct and highly complex civilization. In large part, this has been due to the archaeological excavations, by a joint Soviet Afghan mission in northern Afghanistan in the late 1960's and 1970's under the direction of V.I. Sarianidi, of sites around the Dashly oasis, and in the neighbouring south Uzbekistan at Sapalli-tepe by A. A. Askarov.[1] Close relationships between Bactria and Margiana have been established by archaeological excavations in the lower basin of the Murghab river, the ancient oasis of Merv in Turkmenistan.[2] Further west at sites near the Atrek and Gurgan rivers, which flow into the Caspian Sea, other links in material culture have been found.[3] Additionally, excavations in Baluchistan have also proved that some connections with Bactria must have existed during the Bronze Age.[4]

Unfortunately, the protracted war in Afghanistan has made scientific excavation there impossible in the last decade. This chaotic situation has facilitated a large outflow of illicitly-excavated material of unknown provenance, much of which must have come from Afghan Bactrian sites. Some extraordinary objects have found their way into public collections, notably the Louvre, and the Metropolitan Museum. Still more remains in private hands.[5]

From what we may glean from the mass of data produced by excavation reports, the Bronze Age culture of Bactria flourished on both sides of the Amu Darya river and in oases and tributary river basins between about 2500 and 1500 B.C. Prior to this age, Palaeolithic and Neolithic sites are known to have existed in this region; but during the Bronze Age a remarkable period of urbanization appears to have taken place. Earlier cultures east of the Caspian of the "Namazga" type, particularly the site of Altyn Tepe, bear some similarities to Bronze Age Bactria, and may have had a primary influence in its development.[6] Sites in Baluchistan and on the Kachi Plain of Pakistan close to the Indus Civilization's heartland have also been suggested to have been related.[7] Obviously, many decades of research may be required before Bactrian Civilization is more fully understood. With this caveat in mind, it is still possible to point out a number of instances where certain Bronze Age Bactrian forms and concepts suggest and possibly prefigure similar ones found in India. In demonstrating such similarities, however, it should be noted at the outset that vast chronological gaps exist, and that there is little evidence of the means or pathways that might have been used for their transmission. Some of the similarities may be sheer coincidence. Yet, until more of Bronze Age Bactria is scientifically revealed, it is useful to suggest possible connections between ancient Bactrian and Indian culture.

It is apparent from the extant information of scientific surveys that Bronze Age Bactria contained a number of urban centres. Its population appears to have practised field agriculture with great skill in hydraulic engineering, and stock-breeding. Probably, there were nomadic groups as well as town-based agriculturalists among its inhabitants. Yet, the factor that undoubtedly gave the region its greatest prosperity was its strategic location for trade in rare commodities, minerals, and gems, especially lapis lazuli.[8] Bactrian objects have been found in Elamite Susa in south-west Iran.[9] At the large urban centre of Sapalli-tepe in south Uzbekistan, fragments of silk, the oldest known outside China, were discovered.[10] Trade and cultural interaction also existed with Indus Valley Civilization. French excavations at Shortugai in north-eastern Bactria have brought to light a settlement which was very likely a Harappan trading colony.[11]

V. I. Sarianidi has proposed an Indo-Iranian ethnic and cultural presence in Bronze Age Bactria, and thus has coloured most of his hypotheses in this light.[12] On the other hand, Pierre Amiet has pointed out probable cultural links between Bactria and the early Elamite western Iran, involving the possibility of a nomad-artisan Bactrian aristocracy with strong Elamite affinities.[13] Whatever the origins of the settled inhabitants of this land may have been, they most undoubtedly came into contact with many more transient population groups, some of which were to eventually move south to the Indian subcontinent. What exchanges of material culture or ideology might have taken place between them can only be surmised.

Sarianidi's excavations at Dashly 3 in north Afghanistan have produced the plans of two remarkable urban monuments. One, which he calls a "palace", is approximately 40 m. square, and is made up of a double wall of brick forming a large central court ringed by an extremely narrow hallway. From the centre of the four sides T-shaped narrow corridors emanate; and from the corners of the square L-shaped corridors are directed inward toward the T-shapes[14](Fig. 1). Such an architectural design is uniquely Bactrian, and decidedly non-functional looking. The corridors showed little sign of human activity; and in Sarianidi's plan they have a maze-like configuration. The careful brick construction with exterior walls relieved by pilasters and niches indicate that the building was of great importance in the community. Within the courtyard, a number of rooms built against the inner walls of the court had brick floors and contained, among other things, alabaster mosaic fragments and inlay pieces in the trefoil pattern characteristic of Indus Civilization.[15]

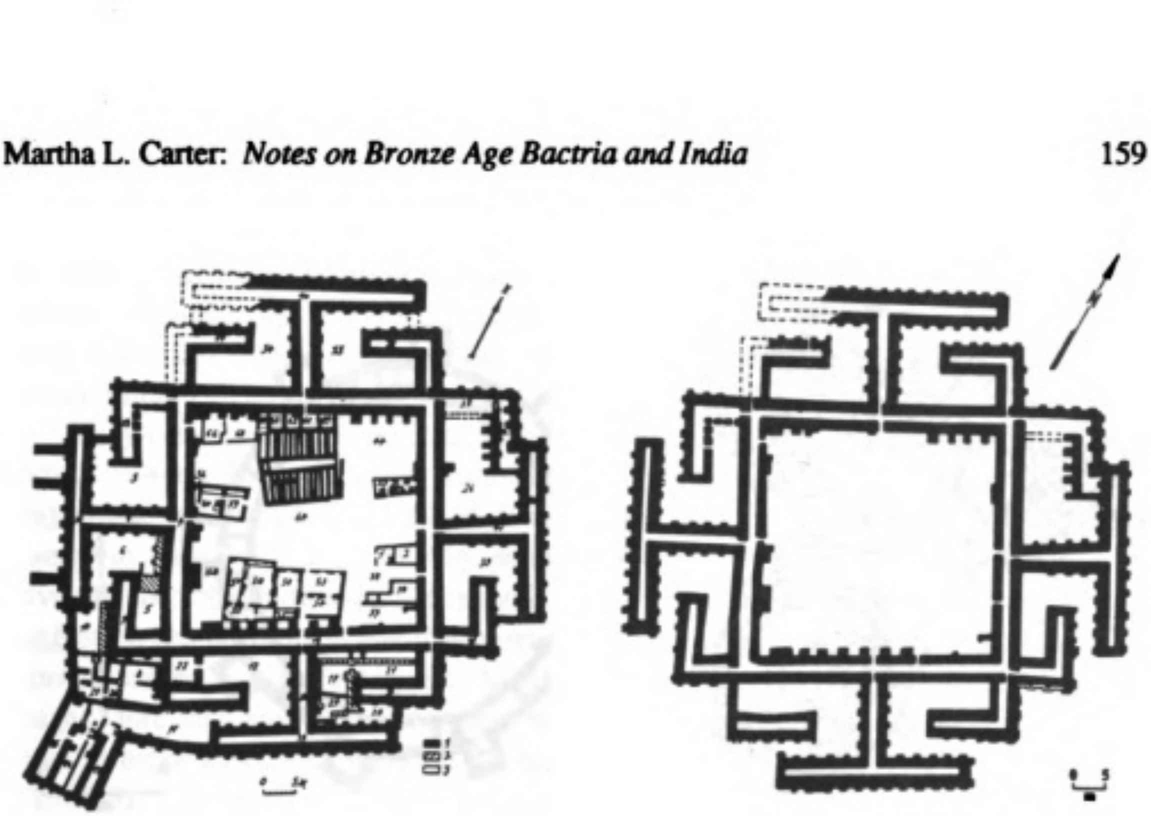


Fig. 1. Reconstructed plan of Dashly 3 monumental building called the "palace" (from *Bactria*, eds. G. Ligabue and S. Salvatori, fig. 1, p. 16)

Sarianidi has noted that the design of the "palace" is in the form of a *maṇḍala*, although he does so without elaborating on any association with the use of such symbolic diagrams in India.[16] Some tenuous link, however, cannot be dismissed out of hand. The idea of the square as an earth symbol was widespread among many early peoples, as was the circle, which often represented the sun or the heavens. One is also struck by a clear resemblance to the design of Chinese TLV bronze mirror backs of the Han Dynasty. The exact meaning of the TLV design is uncertain, but has been interpreted as a diagram of the cosmos.[17]

Significantly, a second monument uncovered at Dashly 3, called the "temple" by Sarianidi, was a large double walled circular construction, 40 m. in diameter, having nine rectangular towers on the exterior, and one narrow entrance[18] (Fig. 2). These towers opened up into rooms which divided the space between the inner and outer walls. Inside the interior walls was a seemingly haphazard complex of rooms, some extremely narrow, possibly granaries. Other larger rooms contained hearths, several of which were raised on brick platforms. Ashes and some animal bones were found to predominate within the central rooms, indicating that they had a purpose other than habitation. Following this line of reasoning, Sarianidi has postulated that the circular walls housed the remains of a fire temple. About 150 m. beyond the "temple" the whole area was surrounded by a moat. Whether, right or wrong in the specifics, one must agree with Sarianidi that

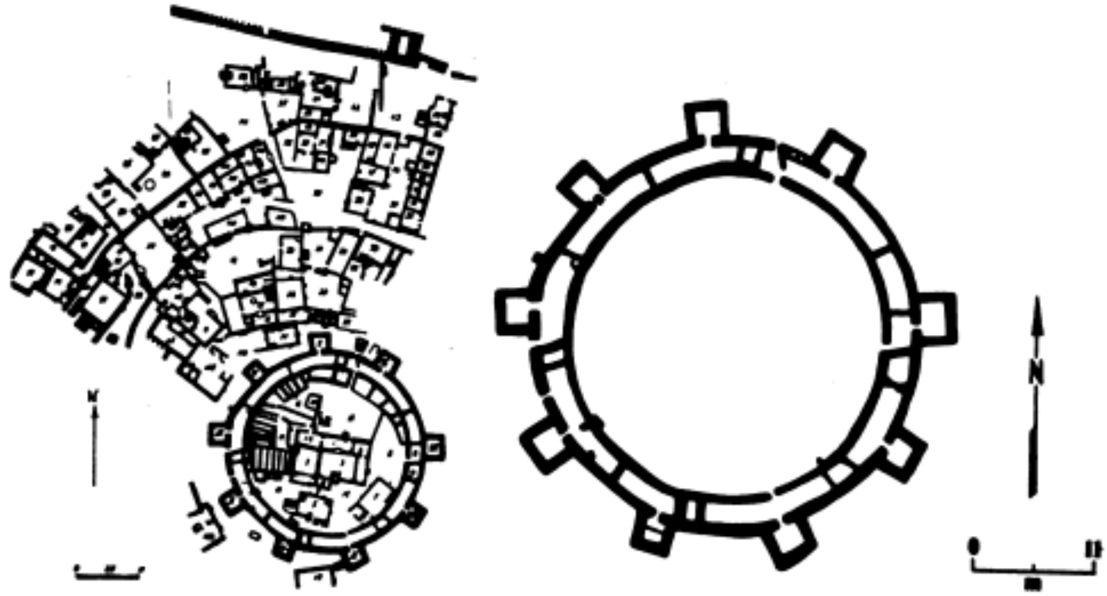


Fig. 2. Reconstructed plan of Dashly 3 monumental building complex called the "temple" (from *Bactria*, eds. G. Ligabue and S. Salvatori, fig. 2, p. 17)

the circular walled structure seems to have fulfilled some special function, possibly a sacred one. Sarianidi points out that excavated remains of round buildings of first millennium B.C. Bactria echo the plan of the Dashly "temple". One, known as Kutlug Tepe, had three rings of walls, and was surrounded by a moat.[19] Another, a huge double-walled ring, 100 m. in diameter, with semicircular towers on its exterior, was uncovered at Chapar.[20] This could hardly have been a fortification, since its excavators found that there were several openings in the outside walls between the towers. As such, its defensive capabilities would have been severely compromised. The latest and most famous monument of this type was excavated by S.P. Tolstov at Koi Krylgan Kala in what was ancient Choresmia south of the Aral Sea.[21] In this case there is substantial evidence that it was created as a dynastic mausoleum in the 3rd century B.C. In retrospect, these monumental structures are highly distinctive in plan. They are fortress-like, but do not appear to be used primarily as such. It is, therefore, appropriate to speculate that some might have been temples, although Sarianidi's "fire temple" hypothesis rests on slender evidence.

Both circular and crossed-square designs similar to the Dashly 3 building plans are found among the large metal compartmented "seals" which are frequently found at Bronze Age Bactrian sites[22] (Pl. 11.1). The function of these objects appears to have been to impress a design on a surface; and, at Shahdad in east Iran impressions made by stamps such as these were found on pottery.[23] Clearly, these were articles of personal use, and perhaps even adornment. Since they have been found around the pelvic area of skeletal remains in burial sites, it has been postulated that they were worn dangling on cords from belts.[24] It is unlikely, however, that they functioned in a way similar to the more familiar cylinder seals and stamp seals.

They are often simply rosettes, or geometric designs of a rather generalized nature; some, however, depict deities, or sacred animals, particularly birds of prey, serpents, and dragon-like creatures (Pls. 11.2 a, b & c). Since there are far too many of these metal stamps to have been used only by potters, they must have been articles of prestige, having a special significance. Since there is such an absence of printed impressions, the suggestion has been made that they were used as amulets.[25] Yet, the fact that they were worn or carried, as signified by their loop attachment on the back, may indicate a specific usage. More than any other form, they resemble metal stamps used in modern times in India to make auspicious signs on the body or on prayer cloths before ritual worship[26] (Pl. 11.3). I have no idea how far back the body-stamp tradition extends in India, although the tradition of the Sanskrit word "*mudrā*" as a stamp, or seal must be extremely ancient. Nevertheless, even if the modern Indian and Bronze Age Bactrian stamps are not directly related, there is still a strong possibility that the Bronze Age Bactrians marked their bodies for a similar purpose. Unfortunately, no depiction of human figures from Bronze Age Bactria show these designs. We do have ample evidence, however, of elaborate body and facial marking in India from ancient times, a practice which continues to this day among tribal women of Uzbekistan.

The wealth of objects of value found in tombs at Sapalli-tepe containing female remains suggests that women held a high status in the community.[27] Stone statuettes of females are also common among Bactrian objects. They depict the feminine dress as an ample, sleeved, floor-length robe (Pl. 11.4). Carved of dark chlorite and engraved with a stylized fleece designs resembling the Mesopotamian *kaunakes*, the voluminously-clad female bodies have heads of contrasting white limestone.[28] These are very generalized, but characteristically have stylized hair or flat-topped turbans made of dark chlorite. Such majestic ladies are imposing enough to represent a Bactrian goddess or goddesses; but, whatever their identity, they are distinct from the sexually-explicit female figurines found in the burial sites of other contemporary cultures. Bactrian males who appear in scenes on engraved silver vessels wear a kilt or chiton covering the left shoulder.[29] The closely-spaced linear patterning on renderings of the garment suggests a hairy animal skin. These individuals appear to have favoured short beards and hair pulled to the back of the head where it was fastened and perhaps braided. One of the most interesting features of the attire are short boots which cover the ankle and foot and are turned up at the toe. A small bronze cosmetic container in the Louvre Museum shows a kneeling monkey carrying a wine-skin and wearing them (Pl. 11.5). This type of footwear appears to have been widespread in the highland areas of the ancient Near East. The Hittites appear to have worn boots of this type, and ceramic vessels of the same boot shape are thought to have originated in second millennium B.C. Anatolia.[30] A spectacular coin-hoard found during the French excavations at Ai Khanum brought to light six square coins of the Indo-Greek ruler Agathocles which featured standing male figures on either face wearing boots with prominent upturned toes[31] (Pl. 11.6). One, holding aloft a pestle and plough is identifiable as Balarāma (Saṅkarshaṇa); and the other, holding a spoked wheel is most probably Vāsudeva (Kṛishṇa). The Besnagar column has an inscription honouring Vāsudeva, made by the Indo-Greek Heliodorus from Taxila who was an ambassador of Antialcidas (*c*. 115 to 100 B.C.). This personage evidently was an adorer of this deity (*devadeva*), and had the column erected to support a now missing image of Garuḍa, Vishṇu's vehicle.[32] To return to the coins, their shape and weight are early Indian, and all evidence points to Taxila as their point of origin.[33] Nevertheless, the dress of the deities, particularly their footwear, is most unusual. Could this indicate a connection with a traditional form of Bactrian attire? The odd long skirts, seemingly pleated, with jagged hems, and the long scarves could be Indian; but the boots mark the wearers as Northerners. Possibly some early form of Bhāgavata cult and imagery was already present in Bactria under its Indo-Greek rulers; or possibly, for some unknown reason, traditional Bactrian dress became fashionable in Indo-Greek Taxila for divine images. Similar boots are worn by the bibulous Yaksha (probably Kubera) on the Tank silver dish in the British Museum.[34] Although it dates from the fifth or sixth century A.D., and was found in the Punjab, the work has strongly northern characteristics. The invasion of Hūṇa tribes from Afghanistan took place during this period, and the silver dish may be an item of plunder taken far from its point of origin.

Bactrian imagery offers some clues as to the nature of the religious beliefs of its Bronze Age population. The prominence of dragons, serpents and fantastic beasts represented make it highly unlikely that Zoroastrianism was widely known, since these creatures would have been considered noxious creations of pure evil (*khrafstra*).[35] Large raptors (i.e. vultures or eagles with spread wings) are notable on compartmented stamps, as are human-bodied males with raptor heads, often represented with snakes.[36] One extraordinary ceremonial axe in the Metropolitan Museum shows a fantastic human-bodied male, with two opposite-facing bird-heads and bird-clawed hands and feet, holding at arm's length a large boar and a winged feline-headed monster[37] (Pl. 11.7). This seems to be some sort of fabulous being of Bactrian myth having one or two bird-heads, who is depicted elsewhere dominating a variety of real and imaginary creatures. From earliest times, great raptors have been considered the auspicious inhabitants of the heavenly regions, and were the theriomorphs of solar deities. Vishṇu's vehicle Garuḍa is just such a solar bird divinity; and the Besnagar inscription states that the pillar of Heliodorus originally had the image of Garuḍa on top of it. Could the Bactrian fantastic bird-man have had an influence on the character of Garuḍa? The Vaishṇava religion is an obvious composite featuring many diverse mythic elements (*avatāras*, etc.). We know from Indian mythology that *nāgas* are Garuḍa's enemies.[38] A number of seal and stamp representations of Bronze Age Bactria show a bird-man holding or surrounded by snakes, although perhaps in a symbiotic relationship, since the serpent (*nāga*) symbolizes earth and watery element just as the great bird-of-prey symbolizes the sun and heavens.[39] Water for agriculture was a precious commodity in Bactria; and the snakes and fabulous reptiles found on stone and clay vessels, and on seals were likely associated with this element. Whether the popularity in ancient India of the cult of the *nāgas* had any relationship with their counterparts in Bactria is, of course, unknown, and probably unknowable. Yet, *nāgas* are distinctly pre-Vedic chthonic deities, and, together with the solar bird or bird-man, may provide a link between India and Bronze Age Bactria. One of the most prominent Buddhist *stūpas* at Sirkap is the so-called "Shrine of the Double-headed Eagle", named after one of the birds shown perched on top of a representation of a facade or gateway carved on its square base.[40] Marshall noted that the double-headed eagle motif first made its appearance in Western Asia in early Babylonian and Hittite art; and that it later became associated with the Scythians.[41] He suggested that the motif was introduced by the Śaka invaders who occupied Sirkap in late first century B.C. Although this fabulous creature was widely known and has been much studied in the ancient Near East and medieval Europe, its discovery in Bactria around 2000 B.C. brings it closer to India at a much earlier period.

Some of the metal compartmented stamps depict females with animals, both real and imaginary. One example (Fig. 3) shows a female wearing a long skirt and seated on the back of an one-horned dragon, possibly a predecessor of the type of lion-griffin found in Bactria over two millennia later. The motif of the female riding a dragon or sea-monster appears very frequently on stone cosmetic palettes of pre-Kushāṇa Gandhāra dated around the beginning of the Common Era.[42] These have been generally considered to be the products of Hellenistic or Graeco-Iranian cultural influence. Perhaps the motif of "nereid riding a sea monster" is simply a hellenizing version of a type of imagery descended from the Bactrian Bronze Age. One may also find a similar female, probably a goddess of earth or water, carved on a capital excavated at the Buddhist *stūpa* of Butkara I in Swat (Pl. 11.8). In addition, it is worth mentioning that goddesses enthroned on dragons appear to have been popular in the imagery of Late Antique Sogdiana.[43] An interesting compartmented stamp belonging to the Bactrian culture shows a standing female with a crescent on top of her head (Pl. 11.9). She holds a pair of unidentifiable animals out on either side. The Bactrian goddess Nanā on coinage of the Kushāṇa

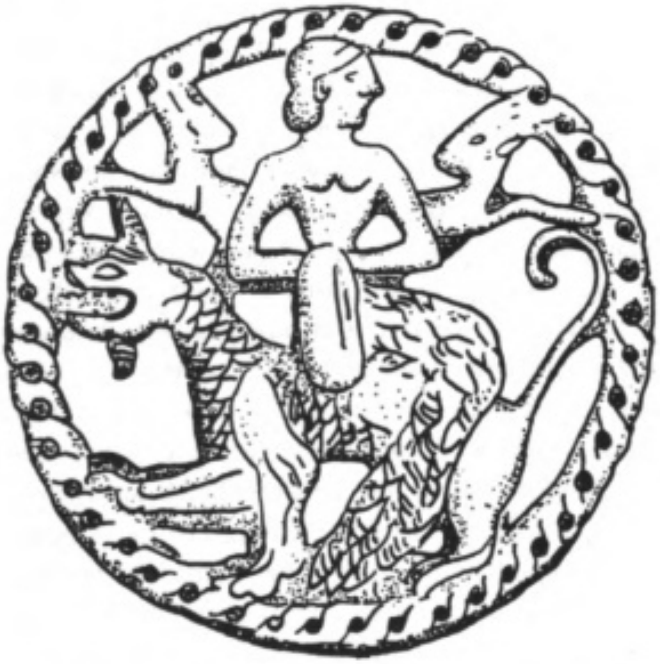


Fig. 3. Drawing of a compartmented seal, private collection (from *Bactria*, fig. 11, p. 137)

period wears an identical crescent and carries a scepter with an animal protome.[44] She appears to have been associated with animals and the moon, like Artemis, and is thought to have been closely related to an ancient Babylonian and Elamite goddess of the same name, who in turn is linked to the Mesopotamian goddess Inanna-Ishtar.[45] In the mythology of Mesopotamia Nanā is both a goddess of love and war, and is the daughter of the moon god. At Dura Europos during the Seleucid-Parthian age in Iran, she was known both as Nanaia and Artemis.[46] Possibly, the Bactrian Nanā of the Kushāṇa realm descended from the goddess worshipped there during the Bronze Age. Nanā is shown on a Kushāṇa intaglio and on a rare Kushāṇa coin seated frontally on a lion.[47] A magnificent Bactrian solid-backed gold compartmented stamp portrays a winged divinity standing in front of a pair of lions, possibly a lion throne[48] (Pl. 11.10). Here again we are reminded of Nanā and of her related Indian counterpart Durgā, also an invincible goddess of battle, whose vehicle is a lion like her forerunners Ishtar and Nanā.

One could continue in this speculative vein much further; but the parallels in imagery discussed above serve to remind one that Bactria must now be considered a factor in India's prehistory. The Indo-Aryans, moving from their steppe homeland in the north, appear to have left only meagre recognizable remains in the upper Oxus region;

but contacts with the settled population there seem very likely.[49] Exactly what part they might have played in the culture they found, or whether they might have been responsible in some way for its downfall, are matters for further investigation.[50]

As Lamberg-Karlovsky has pointed out, the culture of Bronze Age Bactria indicates clearly that its settled inhabitants constituted an ethnos, described by Iulian Bromlei as, '... a firm aggregate of people, historically and culturally established in a given territory, possessing in common relatively stable particularities of language and culture, and also recognizing their unity and difference from other similar formations (self-awareness) and expressing this in a self-appointed name (ethnonym).'[51] David McAlpin's work on the relationship between Dravidian languages and Elamite has led him to the conclusion that the two languages derive from a common source, which he calls Proto-Elamo-Dravidian.[52] Brahui is categorized as a northern Dravidian subgroup intermediate between the two major ones. The prototype language, he suggests, disintegrated before the end of the fifth millennium B.C. Although nothing is known of the indigenous language of urban Bronze Age Bactria, an early descendant of Proto-Elamo-Dravidian would be a good candidate. This might help explain some of the cultural similarities between Elam, Bactria, and the Indus Valley in their nascent periods.

Notes and references

1. V.I. Sarianidi, 'Bactria in the Bronze Age', *Soviet Anthropology and Archaeology* (1976), pp. 49-83; *idem*, 'Issledovanie pamyatnikov dashlinskogo oazisa', in *Drevnyaya Baktriya*, I (1976), pp. 21-86; *idem*, 'Bactria Center of Ancient Art', *Mesopotamia*, 12 (1977), pp. 97-110; *idem*, 'Ancient Horassan and Bactria', in *Le plateau iranien et l'Asie Centrale des origines à la conquete islamique*, ed. J. Deshayes, (Paris, 1977), pp. 129-142; *idem*, *Drevnie Zemledel'tsi Afghanistana* (Moscow, 1977); *idem*, 'Ob odnoi gruppe kul'tovikh izdelii Baktrii', *Sovietskaya Arkheologiya*, 3 (1979), pp. 262-265; *idem*, 'New finds in Bactrian and Indo-Iranian connections', in *South Asian Archaeology 1977*, ed. M. Taddei, (Naples, 1979), pp. 129-142; *idem*, 'Anthropomorphic Divinities of Ancient Bactria', in *Ethnologie und Geschichte*, ed. P. Snoy, (Wiesbaden, 1983), pp. 515-526; *idem*, 'Les origines de la culture agricole primitive de la Bactriane', in *L'archéologie de la Bactriane ancienne*, ed. J.-C. Gardin, (Paris, 1985), pp. 125-134; *idem*, *Die Kunst des Alten Afghanistan* (Leipzig, 1986); A.A. Askarov, *Sapallitepa* (Tashkent, 1973); *idem*, *Drevnezemledel'cheskaya kul'tura epokhi bronzi iuga Uzbekistan* (Tashkent, 1977); *idem*, 'Southern Uzbekistan in the Second Millennium B.C.', in *The Bronze Age Civilization of Central Asia: Recent Soviet Discoveries*, ed. P. Kohl, (Armonk, New York, 1981), pp. 256-272; *idem*, 'Traditions et innovations dans la culture du Nord de la Bactriane à l'Age du Bronze', in *L'archéologie de la Bactriane ancienne*, (Paris, 1985), pp. 119-124.
2. V.I. Sarianidi, 'Margiana in the Bronze Age', in *The Bronze Age Civilization of Central Asia*, ed. P. Kohl (1981), pp. 165-193; *idem*, 'Le complexe culturel de Togolok 21 en Margiane', *Arts Asiatiques*, XLI (1986), pp. 5-21; I.S. Masimov, 'Bronze Age Sites in the Lower Murghab', in *The Bronze Age Civilization of Central Asia*, ed. P. Kohl (1981), pp. 194-220; P. Kohl, *Central Asia: Palaeolithic Beginnings to the Iron Age* (Paris, 1984), pp. 143-150.

3. V.M. Masson, 'Altyn-depe and the Bull Cult', ***Antiquity***, Vol. 50 (1976), pp. 14-19; ***idem, Altyn-depe. Trudi Iushno-Turkmenistanskaya A. K. E. XVIII*** (1981). In the Early Bronze Age (Namazga IV) Altyn-depe was found to have a sophisticated craft production, with a developed artisan class using the potter's wheel and also a two-tiered kiln. Stone vessels and ownership seals were also manufactured. Large temples on platforms were constructed in brick.
4. J.-F. Jarrige, 'Economy and Society in the Early Chalcolithic/Bronze Age of Baluchistan: New perspectives from recent excavations at Mehrgarh', in *South Asian Archaeology 1979*, ed. H. Härtel, (Berlin, 1981), pp. 93-114; J.-F. Jarrige and M. Usman Hassan, 'A Funerary Complex in Baluchistan at the end of the 3rd millennium in light of recent discoveries at Mehrgarh and Quetta', in *South Asian Archaeology 1985*, ed. K. Frifelt and P. Sorensen, (London, 1989), pp. 150-166. See also P. Amiet, 'Antiquities of Bactria and Outer Iran in the Louvre Collection', in *Bactria*, eds. G. Ligabue and S. Salvatori, (Rome, 1988), pp. 159-180.
5. H. Pittman, *Art of the Bronze Age: Southeastern Iran, Western Central Asia, and the Indus Valley*, The Metropolitan Museum of Art (New York, 1984) and illus.; also *Bactria*, eds. Ligabue and Salvatori, (Rome, 1988), and especially in that volume, S. Salvatori, 'Early Bactrian objects in Private Collections', pp. 181-187 and illus.; and P. Amiet, 'Elam and Bactria', pp. 127-140, and *op. cit.*, pp. 159 ff.
6. P. Kohl, *Central Asia* (1984), chapters 10 and 11, pp. 105-134.
7. Jarrige and Usman Hassan, *op. cit.*, pp. 164-165; also J.-F. Jarrige, 'Les relations entre l'Asie centrale méridionale, le Baluchistan, et la vallée de l'Indus à la fin du 3e et au début de 2e millenaire', in *L'archéologie de la Bactriane ancienne*, pp. 105-118.
8. G. Herrmann, 'Lapis Lazuli: The Early Phases of its Trade', *Iraq*, 30 (1968), pp. 21-57; M. Tosi, 'The Lapis Lazuli Trade across the Iranian Plateau in the 3rd Millennium B.C.', in *Gururajamanjarika. Studi in onore di Giuseppe Tucci*, I (Naples, 1974), pp. 3-22.
9. P. Amiet, *L'âge des échanges inter-iraniens. Notes et documents des musées de France* (Paris, 1985); *idem*, in *Bactria*, pp. 132-135.
10. Kohl, *Central Asia*, p. 157, who notes probable early trade between Bactria and East Asia, which would be the earliest evidence of a Silk Route across Chinese Turkestan. The discovery of millet seeds also suggests a link with the Far East. Interestingly, sheep, goats and cattle were the prominent domestic animals. Wheat, barley and grapes were grown. Camels were rare, and no horse remains were found.
11. H.-P. Francfort and M.-H. Pottier, 'Sondage préliminaire sur l'établissment protohistorique Harappéen et post-Harappéen de Shortugai (Afghanistan du N.-E.)', *Arts Asiatiques*, XXXIV (1978), pp. 29-79; H.-P. Francfort, 'The Late Periods of Shortughai and the problem of the Bishkent Culture', in *South Asian Archaeology 1979*, pp. 191-202.
12. V.I. Sarianidi, 'Soviet Excavations in Bactria: The Bronze Age', in *Bactria*, pp. 109-123; also M.-H. Pottier, *Materiel funeraire de la Bactriane meridionale de l'âge du bronze* (Paris, 1984), for similar interpretations, especially on the miniature silver trumpets, pp. 47-48 and pp. 72-73.
13. Amiet, 'Elam and Bactria', in *Bactria*, pp. 127-140 and bibliography. Amiet prefers the terms "outer Iran" for the north and east, also "trans-Elam" which would include Bactria in its outer orbit.
14. Sarianidi, 'Soviet Excavations', in *Bactria*, pp. 109-110. In the same publication C.C. Lamberg-Karlovsky suggests that one should not be wedded to Near Eastern building function concepts, obviously referring to Sarianidi's ideas (pp. 16-18). An even more complex version of a similar building with T-shaped corridor projections and a number of residential units inside the square were excavated at Sapalli-tepe by Askarov [*Drevnezemledel'cheskaya* ... (1977)]. See also Kohl, *Central Asia*, pp. 153-159, fig. 20, and pp. 166-168, fig. 22.

15. Sarianidi, *Drevnie zemledel'tsi...*, fig. 19. Part of a bull's horn motif of Harappan type was also found with this. These may either show influence of the Indus Valley or a parallel imagery.
16. Sarianidi, in *Bactria*, p. 112. He comments that it has been assumed that such structures can be compared with palaces in which rulers of Indo-Aryan groups were crowned in the second millennium B.C.
17. M. Sullivan, *The Arts of China* (Berkeley, 1973), pp. 82-84, where the author suggests that the design is a combination of terrestrial and celestial symbols, referring to the four directions. It is also associated with an ancient board game (*liu-po*) which used a similar configuration.
18. Sarianidi, *Drevnie zemledel'tsi ...*, pp. 37-39.
19. Sarianidi, in *Bactria*, p. 110, and fig. 2. See also G.A. Pugachenkova, 'Le probleme de l'heritage dans la culture artistique de la Bactriane antique', in *L'archàologie de la Bactriane ancienne*, pp. 253-256.
20. Sarianidi, in *Bactria*, pp. 110-111.
21. S.P. Tolstov, *Koy-Krylgan-Kala (4th c. B.C.–4th c. A.D.)*, Akademiya Nauk, S.S.S.R. (Moscow, 1967).
22. These large compartmented metal stamps should be distinguished from stone cylinder and stamp seals from Iranian sites, and from the Merv oasis culture. Merv stone seals have similar motifs, but could only have been used on a soft surface. For the stamps, some sort of powder or pigment would have needed to make the design. See Pittman, *op. cit.*, pp. 53-61; Amiet, in *Bactria*, pp. 166-173, and bibliography. Amiet notes that the seals are made of a copper alloy, and cast using the lost-wax process. Although found in south-east Iran and Turkmenia during the Bronze Age, they are most common in Bactrian burial sites. Unfortunately, many have come out of the region through illicit sources, as a result of which the provenances are not known.
23. A. Hakemi, *Catalogue de l'exposition Lut-Xabis (Shahdad)* (Teheran, 1972), pls. 21b, 22b, 23b, 24c. See also C. Lamberg-Karlovsky and M. Tosi, 'Shahr-i Sokhta and Tepe Yayha: Tracks on the earliest History of the Iranian Plateau', *East and West*, 23 (1973), figs. 41-49.
24. V.M. Masson and V.I. Sarianidi, *Central Asia. Turkmenia before the Achaemenids* (London, 1972), p. 122.
25. Amiet, in *Bactria*, p. 169. 'The absence of printed impressions suggests that they were used as amulets rather than as genuine seals.'
26. A. Mookerjee and M. Khanna, *The Tantric Way* (London, 1977), pp. 168-170; also R. Bussabarger and B. Dashew Robins, *The Everyday Art of India* (New York, 1968), pp. 86-87. Stamps could also have been used on leather or felt. Nestorian Christian compartmented stamps in Greek cross form and dated from the 11th to 14th centuries have been found in Chinese Central Asia. The Bactrian, Indian and Nestorian stamps are very similar.
27. Askarov, *Sapallitepa*, p. 139. See also R. Biscione and L. Bondioli, in *Bactria*, pp. 66-68.
28. Amiet, in *Bactria*, pp. 174-177, and fig. 20a. and b, p. 176; also pls. 108-115. Amiet suggests that the smaller statuettes with *kaunakes* in tasseled or engraved style originated in Bactria. The larger ones, like that found in a grave deposit in Quetta, were made in Outer Iran.
29. For male dress, see engraved silver vessels, and drawings made from them. Amiet, in *Bactria*, p. 161, fig. 6, p. 163. This shows two and four wheeled ox-drawn vehicles; also p. 136, fig. 9 which has a scene of ploughing and seated men; also in the same volume pl. 102 of a seated male (deity ?) on the top of a bronze axe. See also *Glories of the Past: Ancient Art from the Shelby White and Leon Levy Collection* (exhibition catalogue, Metropolitan Museum of Art), ed. D. von Bothmer, (New York, 1990), no. 30, pp. 43-44. Worth mentioning is a magnificent but odd statuette in chlorite of some sort of supernatural being whose body is covered with scales and wears a limestone kilt. His beard resembles that of the famous Mohenjo-daro "priest-king", (Amiet, in *Bactria*, p. 176, fig. 20c and pl. 106).

30. See *Glories of the Past* (1990), no. 20, p. 33, for a pair of ceramic boots used as drinking vessels, labelled to 9th or 8th century B.C. Urartu, from north-west Iran or Anatolia. Other examples were excavated at Hasanlu and Karmir Blur.
31. R. Audouin and P. Bernard, 'Trésor de monnaies indienne et indo-grecques d'Aï Khanoum (Afghanistan) II. Les monnaies indo-grecques', *Revue numismatique* (1974), pp. 7-41 and pls. This is translated into English in chapter 4 of *Graeco-Bactrian and Indian Coins from Afghanistan*, ed. O. Guillaume, (Delhi, 1991), pp. 80-116. The authors note Nearchus' comment that the Indians had a taste for ornate shoes with thick soles (Arrian, *Indika*, viii. 16.5); and that the Buddhist *Vinaya Piṭaka* forbids pointed-toe shoes resembling animal horns. Nevertheless, boots of any sort in ancient India were not normal and are rarely depicted except on representations of the northern foreigners (and Sūrya, who wears the dress of a northern king).
32. H. Lüders, *A List of Brāhmī Inscriptions* (Appendix to *Epigraphia Indica*, X) (Calcutta, 1912), no. 669; Guillaume, *op. cit.*, p. 86.
33. Guillaume, *op. cit.*, pp. 92-96.
34. O.M. Dalton, *The Treasure of the Oxus*, 3rd. ed. (London, 1964), no. 204, pl. XXXIII. The author suggests a Punjabi origin for the object.
35. M. Boyce, *A History of Zoroastrianism*, Vol. I (London, 1975), pp. 89-92. In Persian folklore the tradition of the "Great Saena Bird" which appears in *Yašt* 14.41, is thought to be pre-Zoroastrian. The bird became later the Simurg or Senmurv. It was originally supposed to be a huge falcon with its nest in the Tree of All Seeds, and helped in spreading the seeds of all plants over the earth. In the *Shāhnāmā* it reared the albino hero Zal in its nest and left him a magic feather to use in case of emergency to call for its aid. Zal, king of Zabolistan, comes from an eastern tradition.
36. *Bactria*, p. 118, fig. 11, nos. 1, 2, 5, 6, p. 170, f, p. 171, a, d, pl. 50a, b, d; Pittman, *op. cit.*, fig. 25e, fig. 26c; Kohl, *Central Asia*, pl. 17c.
37. Pittman, *op. cit.*, pp. 70-78 and fig. 36. The author calls the bird a "demon", which is misleading since it may have been much like the fabulous Saena or bird-man Garuḍa. The boar figures prominently in the imagery of Bactria and is rare in Mesopotamia. The ferocity of the boar made it an *avatāra* of Verethragna, and its digging habits made it an "earth diver" in mythology, attaching itself to Vishṇu as Varāha. The feline dragon may have Mesopotamian antecedents. M.-H. Pottier compares the Bactrian dragon with those pulling the chariot of the weather god in Akkadian glyptic. It was evidently later associated with the underworld, earth and water. See M.-H. Pottier, 'Une cachet en argent', *Iranica Antiqua*, Vol. 15 (1980), pp. 167-174.
38. See also the Vedic Garutmān. The divinity as treated in the *Mahābhārata* (1.32) is the son of Kaśyapa and Vinatā, and brother of the solar charioteer Aruṇa. Kaśyapa's another wife Kadru who mistreated Vinatā was the mother of the *nāgas*. The great bird is described as having an eagle head and the arms and torso of a man (*Parameśvara Saṁhitā*, 6.269. 276-77).
39. Garuḍa and the *nāgas* are indeed half-brothers, and thus close kin in spite of their antipathy. Vishṇu, who appears to have been the final inheritor of the Garuḍa myths is incarnate in Śesha, the great cosmic serpent who embodies the non-evolved potential of the waters, and is also Vishṇu's couch. Śesha is also incarnate as the agricultural deity Balarāma, again suggestive of the earth and fertility, and allied with Kṛishṇa. The chief god of Elam Napirisha of Anshan is depicted with a huge snake as his throne (Amiet, *Bactria*, p. 132, and fig. 3).
40. J. Marshall, *Taxila* (Cambridge, 1951), Vol. I, pp. 163-164; Vol. III, pls. 28, 30a.
41. *Ibid.*, Vol. I, p. 164.
42. H.-P. Francfort, *Les palettes du Gandhāra*, M.D.A.F.A. Vol. XXIII (Paris, 1979), pp. 88-89, and pls. V. 9, VI. 1-2, XII. 24, XXI. 41-42, XXII. 43-44.
43. G. Azarpay, *Sogdian Painting* (Berkeley, 1981), p. 140, fig. 13 and pl. 27.

44. R. Göbl, *Münzprägung des Kušanreiches* (Vienna, 1984), pp. 167-168; also J. Rosenfield, *Dynastic Arts of the Kushans* (Berkeley, 1967), pp. 83-91.
45. Azarpay, *op. cit.*, pp. 133-139; Rosenfield, *op. cit.*, pp. 85-86.
46. F. Cumont, *Fouilles de Doura-Europos 1922-1923* (Paris, 1926), pp. 190 ff.
47. Rosenfield, *op. cit.*, pp. 84-85, fig. 10 (drawing of a seal depicting Nanā seated on a lion); Göbl, *op. cit.*, p. 167, no. 4, p. 168, no. 8; also B.N. Mukherjee, *Nanā on Lion* (Calcutta, 1969) for further information.
48. The figure is identified as a "winged genius", but appears to be feminine, and is winged like the Mesopotamian Ishtar. See S. Salvatori, in *Bactria*, p. 184.
49. Some sort of pre-historic entity of Indo-Iranian tribes is generally associated with the Andronovo culture around the Aral Sea, east of the Caspian. The culture is notable for kurgan burials, horse domestication, certain ceramic types, wooden houses and a mobile herding economy. Traces of a similar culture have been found along the Vaksh river, a tributary of the Amu Darya. (See N.L. Chlenova, 'Arkeologicheskie materialy k voprosu ob irantsakh doskifskoy epokhi i indoirantsakh', *Sovietskaya Arkheologiya*, 1984, pp. 88-103). The author suggests movement south beginning in the second millennium *via* river systems to the Indus region, with early settlements of Indo-Aryans revealed in the Gandhāra grave culture, which appears to have originated around 1800 B.C. in the Swat valley.
50. E. Kuz'mina, *Drevneyshie skotovody ot Urala do Tyan-Shanya* (Frunze, 1986); J.P. Mallory, *In Search of the Indo-Europeans* (London, 1989), pp. 231-232.
51. Iu. Bromlei, *Sovremeniiye Problemy Etnografii* (Moscow, 1981), quoted in C. Lamberg- Karlovsky, in *Bactria*, p. 20.
52. D. McAlpin, 'Proto-Elamo-Dravidian: The Evidence and its Implications', *Transactions of the American Philosophical Society*, no. 71 (1981), pt. 3.

12

On the origin of the Swat culture in Pakistan (in view of settlements)

N.M. Vinogradova

I

Geographically, monuments and sites of Swat discussed here mainly occupy territories (Figs. 1 and 2) from a mountain area in Inayat Kuila, not far from Pakistan-Afghanistan western border, to the Indus in the east and from Chitral in the north to the Kabul river in the south.[1] At first only burial complexes were recorded. The first graveyard of Katelai I was discovered in the region of Mingora[2] during works in 1956 undertaken by the Italian Archaeological Mission (IsMEO) under G. Tucci. Besides Katelai I, the Italian archaeologists dug two other necropolises, namely Loebanr I and Butkara II.[3] Small-scale excavations were carried out in 1964 in the north near Chitral[4] to the south-west of the Mingora city near Pacha in Buner: the graveyards of Tarika, Lolbatai, Sogalai Pulanr,[5] and the necropolis of Kherai[6] in the valley of the Gorband river.

Pakistani researchers took an interest in the Italian archaeologists' surveys. A. Dani and his collaborators from Peshawar University since 1960 carried out archaeological investigations in the Swat culture-area and discovered new cemeteries. Some excavations[7] were not extensive. Large-scale excavations were undertaken at Timargarha in 1964 and 1965.[8] Of importance are excavations conducted by A. Dani in Balambat (Figs. 1 and 2) near Timargarha. Here structural remains of Achaemenid period[9] covered burials. One of the most significant investigations of the Pakistani archaeologists is the excavation at Zarif Karuna, published by G.M. Khan.[10] The cemetery is situated 22 km. north-west of the Peshawar city on the bank of the Kabul. The graveyard of Thana on the left bank of the Swat near Chhakdara[11] was also excavated by Pakistani scholars.

Studies of settlements (Figs. 1 and 2) were significant in understanding the Swat culture, though settlements were discovered much later than graveyards.[12] The excavations undertaken by G. Stacul at the rock-shelter of Ghaligai on the left bank of the Swat near the city of Mingora are well-known. These excavations formed the basis for a general chronological column of north Pakistan cultures in the third-first millennia B.C.[13] The excavations launched by G. Stacul and S. Tusa in 1966 at the settlement of Aligrama on the right bank of the Swat, opposite Mingora, are widely known. Numerous building periods[14] were traced stratigraphically. Small-scale excavations were carried out

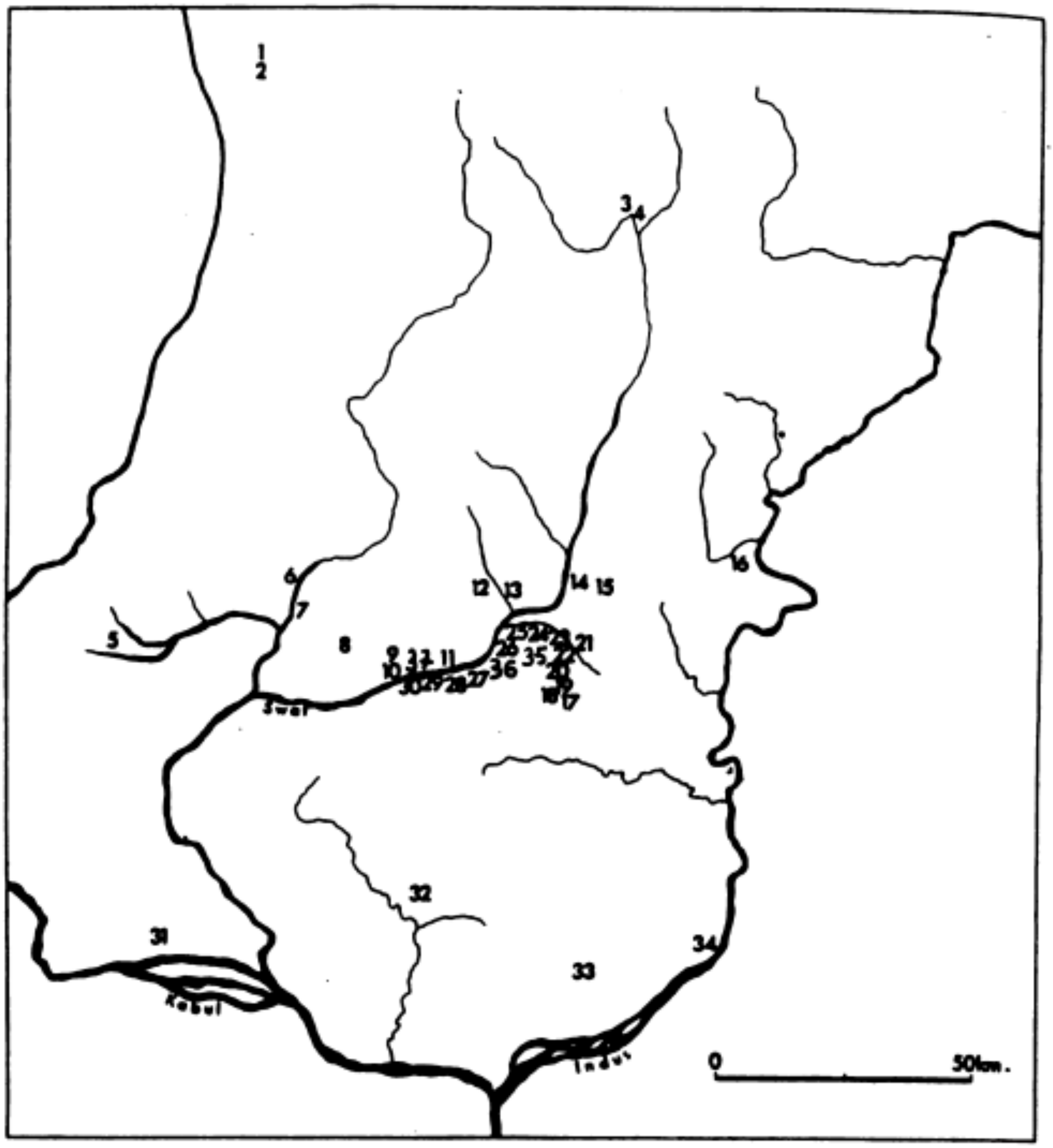


Fig. 1. Sites (indicated by Nos.) of the Swat culture on a map:
1–Noghormuri; 2–Tamunak; 3–Ushoram; 4–Rashnel; 5–Inayat Kuila; 6–Balambat; 7–Timargarha; 8–Ziarat; 9–Chharpat; 10–Chhakdara; 11–Gumbatuna; 12–Bandai; 13–Aligrama; 14–Chharbag; 15–Tilgram; 16–Kherai; 17–Tarike; 18–Sogalai; 19–Lalbatai; 20–Pulanr; 21–Kukarai; 22–Salampur; 23–Loebanr; 24–Butkara; 25–Katelai; 26–Gogdara; 27–Barikot; 28–Kandjarkote; 29–Gatkot; 30–Thana; 31–Zarif-Karuna; 32–Jamalgarhi; 33–Panjpir; 34–Tarbela; 35–Bir-kot-ghundai; 36–Ghaligai; 37–Damkot (after H. Müller-Karpe)

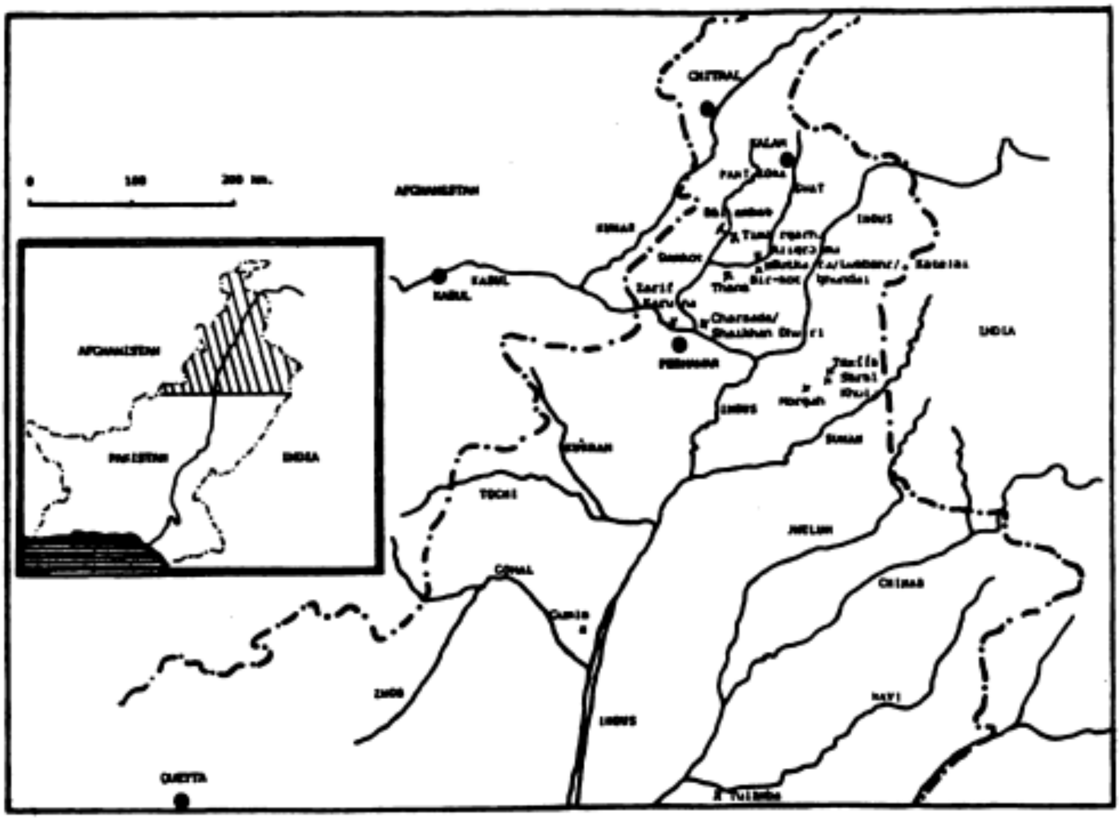


Fig. 2. General map of main sites of north-west Pakistan (after R. Dittmann)

by G. Stacul at Bir-kot-ghundai,[15] where new stratigraphical occupation-layers were revealed. Since 1976 G. Stacul has excavated the settlement of Loebanr III[16] containing many occupation-layers. Archaeologists from Pakistan have dug two settlements: Damkot[17] located on the right bank of the Swat near Chhakdara and Balambat[18] on the right bank of the Panjkora. Some pots which are typical of the Swat culture are found at Harsada,[19] Taxila[20] and Morgarkha.[21]

The discovery of settlements with many occupation-layers, and of burial monuments of the Swat or the "Gandhara burial culture"[22] enables us to investigate on the origin of the unique cultural group, namely the Swat culture, the evolution of which can be traced from the early second millennium B.C. to the mid-first millennium B.C. In recent years a number of monographs and articles have dealt with Swat monuments and sites. In 1961 archaeologists from Pakistan published material on the excavations at Timargarha, Balambat and Thana containing archaeological and historical evaluation of the monuments. In 1972 Italian archaeologists published a large monograph devoted to investigations at Loebanr I, Katelai and Butkara II.[23] In the authors' opinion it is only the first volume which includes the description of graves and finds. The second volume will deal with chronology, general appraisal of culture, economics and religious conceptions. Noteworthy is the article by G. Stacul on the burial custom,[24] contacts with China[25] and Iranian, Near Eastern and European cultural connections.[26] Silvi Antonini has published two debatable articles devoted to the Swat cemeteries and those of Central Asia[27] and their connections.

The Russian scholars B.A. Litvinsky[28] and E.E. Kuz'mina[29] also contributed to the connections between the Swat necropolis and Central Asian cemeteries related to the Bishkent and Vakhsh cultures. In 1979 L. I. Khlopina[30] wrote on the origin of the Swat culture. The German scholars K. Jettmar (in terms of culture and ethnography)[31] and H. Müller-Karpe[32] also contributed to the subject. H. Müller-Karpe in his contribution tried for a general appraisal of burial complexes paying special attention to chronology, social and religious concepts of the population who left graveyards. A few years back a monograph by G. Stacul[33] was published. The work summed up the twenty-year-long activity of the Italian Archaeological Mission (IsMEO) on the Swat monuments and sites, dating from late third to the mid-second millennia B.C. (the settlements of Ghaligai, Bir-kot-ghundai, Loebanr III, the cemetery of Kherai).

Before the excavations of the sites the genesis of the Swat monuments was considered to be exclusively connected with the origin of burial complexes and ethnical migrations from the West or Central Asia.[34] At present the studies of the sites with many occupation-layers (Aligrama, Bir-kot-ghundai, Loebanr III and others) allow us to look to the problem of the origin of the Swat culture and its place in the general sequence of north-west Pakistan cultures from a new angle.

II

The rock-shelter of Ghaligai lies in the Swat valley between Mingora and Barikot.[35] The shelter is a natural cave situated at a high hill on the bank of the Swat. Here the valley is about 2 km. wide. The hilly areas are suitable for crop-farming. The rock-shelter is 8 m. long, 2·5 m. wide and 1·7 m. high. The cultural deposit is 12 m. thick. Twenty-four layers can be distinguished (Fig. 3) and seven chronological periods: I (layers 24-21), II (layers 19 and 18), III (layers 17 and 16), IV (layer 15), V (layers 15-13), VI and VII.

The lowest layer (24), Ghaligai I, did not produce any pottery. There are remains of charcoal and finished pebbles. Layers 23-21 are separated from the preceding one by a thin sterile layer. In these layers were found reddish to red hand-made vessels (Fig. 4); baking is uneven. G. Stacul compares ceramics in layers 23-21 with those of Eneolithic sites of South Turkmenia (Geoksur II, Anau II), Mundigak II in Afghanistan and Nal in Baluchistan. The radiocarbon datings place layer 21 between 2230 + 70 B.C. and 2295 + 55 B.C.; the dating of layer 23 is 2250 + 140 B.C.[36]

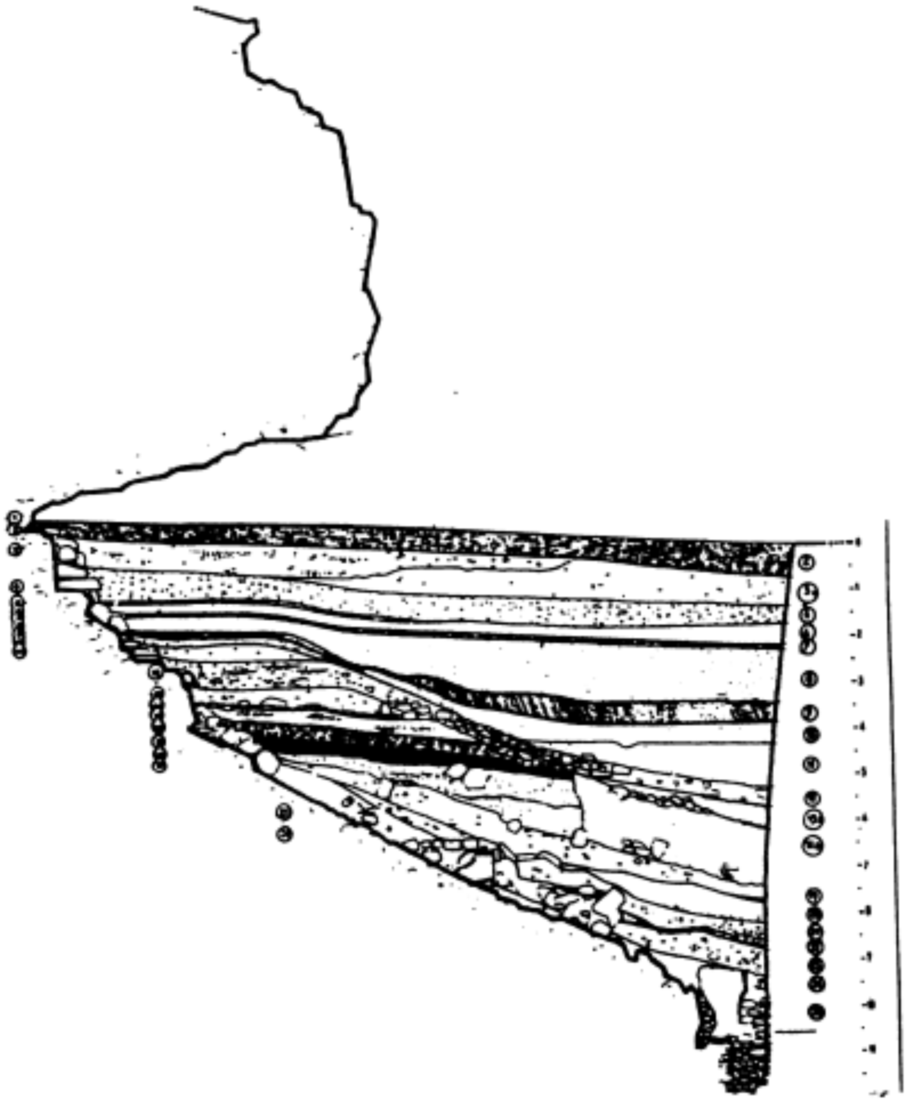


Fig. 3. Stratigraphy of the cultural deposit at Ghaligai (after G. Stacul)

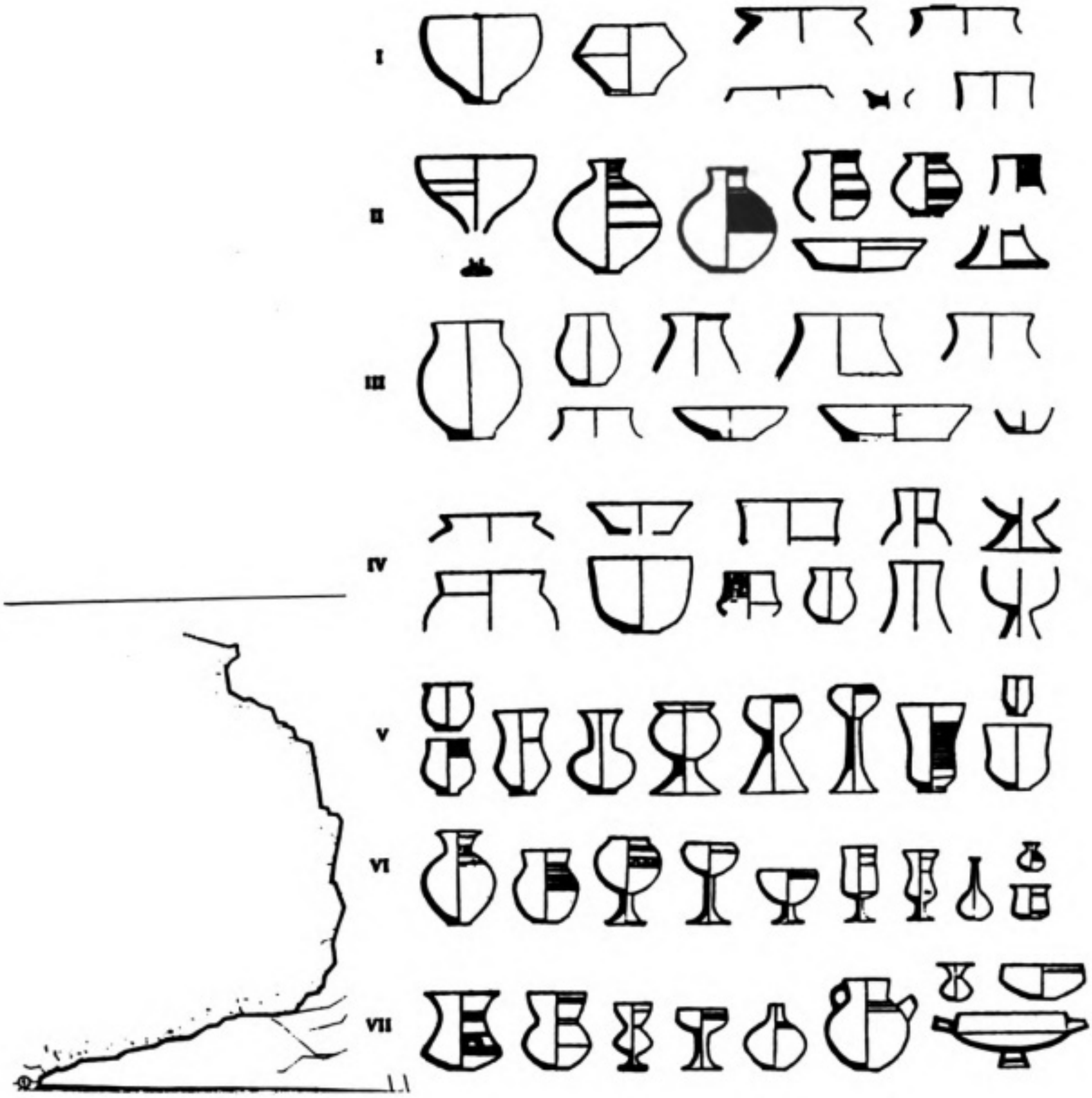


Fig. 4. Major pottery types of Periods I-VII of Ghaligai (after G. Stacul)

Layers 19 and 18 (Period II) are represented by a very good quality pottery, wheel-turned, ornamented with black bands (Fig. 4). Analogous finds occur at Harappa, Mundigak IV, Kalibangan I and other sites. The radiocarbon dating for layer 18 is 1810 ± 55 B.C.[37]

Period III (layers 17 and 16, 50 cm. thick) differs sharply from the preceding one. The pottery is hand-made, grey or reddish to brown; baking is uneven. Occasional traces of fabric[38] occur on the bottom (Fig. 4). Typologically, the finds in layers 17 and 16 are similar to those found at Burzahom I in Kashmir[39] in Neolithic times.

Layer 15 (Period IV) for the first time produced some pots which are typical of that at the Swat cemeteries: tall-stemmed vases (Fig. 4) (VT I Type).[40] Other vessels according to Stacul differ from the ware of the Swat burial complexes; for example, black to grey burnished ware with a wavy brim. Some vessels have impressions of fabric on the bottom like the pottery in layers 17 and 16 (Period III). The layers at Bir-kot-ghundai and Loebanr III have the most accurate comparisons. The scholar compares burnished pottery with patterns at Burzahom in Kashmir and the Kashmir patterns with those at Lung-Shan in north China (the latter dates to the first half of the second millennium B.C.).[41] Besides there occurs painted pottery of black ware. G. Stacul identifies a new shape of vase (a stemmed one) with Hissar II B-III B.

Period V (layers 15-13; 14 is a sterile layer) is characterized by material which is common for the most ancient stage of the Swat graveyards. In the author's opinion lower layers at Harsada and in Iran (Hasanlu V) at the Iron Age have analogous material. The radio-carbon dating is 1330 (1250 ± 100 B.C.).[42]

Period VI of Ghaligai corresponds to the middle stage of the development of the Swat burials and can be synchronized on the basis of parallels in Iran with Iron Age II (Hasanlu IV), 1000–800 B.C.

The later stage of the development of the Swat cemeteries is attributed by G. Stacul to the last period (Period VII). He compares these finds with those at Hasanlu II A in west Iran (500–400 B.C.).[43]

III

After the excavations at Ghaligai of great importance investigations were undertaken at the settlement of Aligrama in the central part of the valley, on the right bank of the Swat, opposite the city of Mingora. The settlement is 10 *ha* in area and it is partially situated on a part of the hill rising 100 m. high above the valley. Both alluvial and other soils were used for constructions. The hill protects the settlements in the north and the west. In the south and east the settlement is restricted to lands being irrigated by the Swat. Aligrama borders the neighbouring valley of the Shahdheri Khvar river where some hundred m. away a new ancient graveyard was unearthed (four graves in all).[44] The

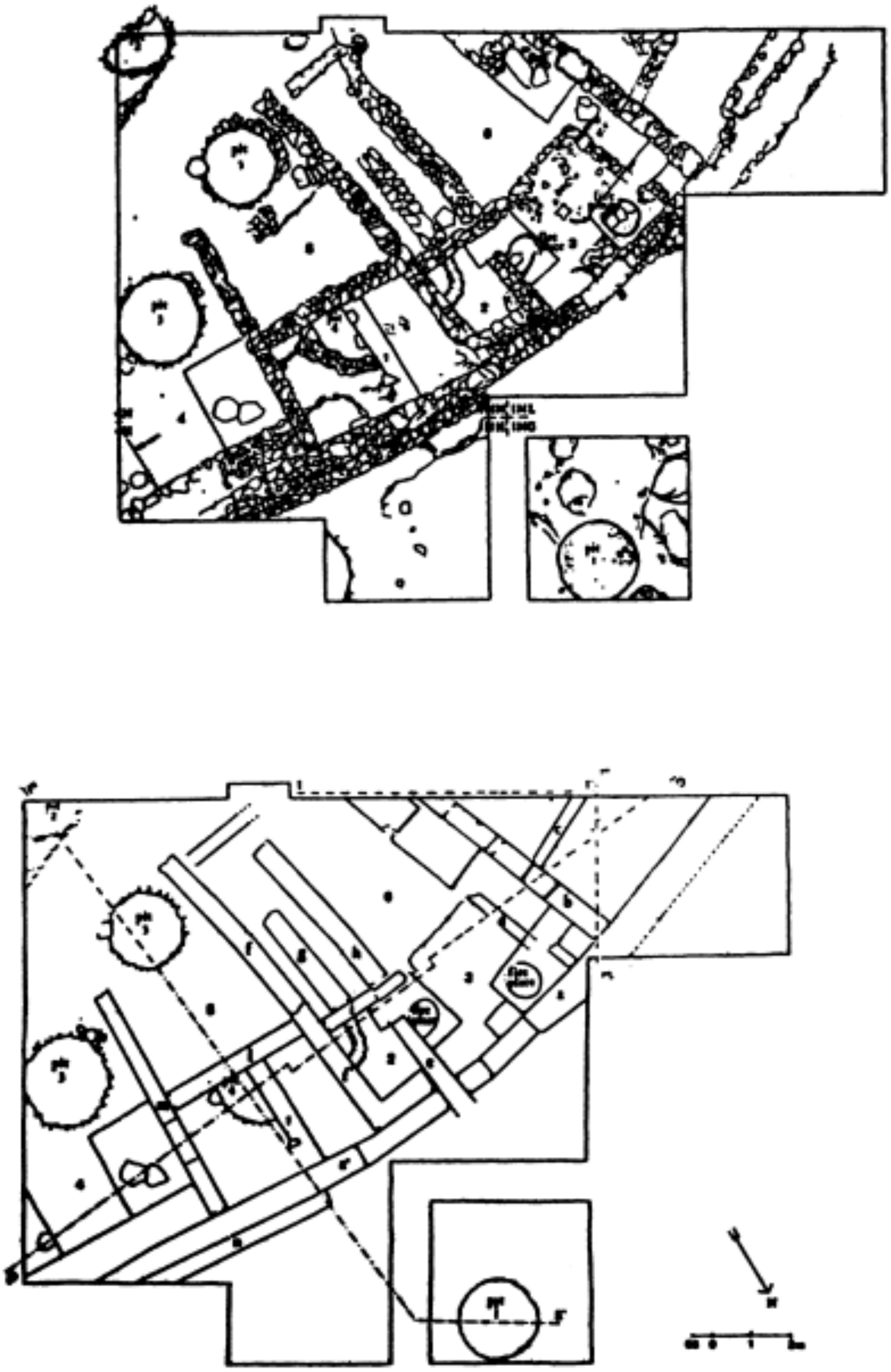


Fig. 5. Plan of Area B of Aligrama

excavations were launched in 1966 and went on in 1972, 1973 and 1974.[45] Several excavation-areas were laid (Areas A, B, C, D, E, F, G and K). Stratigraphically, archaeologists distinguish 14 successive layers and 8 chronological stages beginning with the second millennium B.C. and ending in the late fourth century A.D. with some gaps in the existence of the settlement. A short description of each excavated site can be helpful in evaluating the stratigraphy of each Area (see Table 1).

Area A is 14 m. long. There can be distinguished five stratigraphical layers and three building periods. The lowest layer (5) is represented by a base of stone wall j; the state of preservation is 0·30 m. In layer 4 two pits and two rooms (No. 1 and No. 2) were exposed. Layer 3 showed a room (No. 3). Layer 2 did not produce any structural remains, but pottery was found. The top layer (1) is humus.

Area B (Fig. 5) is next to Area A and has the same stratigraphy. In lower layers (5 and 4) stone bases of walls a-f and three storage-pits were revealed. In layer 3 the walls of three rooms with hearths of unbaked clay and two pits were exposed. Five single crouched burials with full inhumation were excavated. According to G. Stacul and S. Tusa the inhumations took place at the very end of the existence of the settlement or when it was already quitted.[46]

On the basis of stratigraphical data and the analysis of the material the Italian archaeologists single out two chronological stages. The first stage includes the building horizons of layers 5 and 4. The second stage includes the structures found in layers 3 and 2. Stage I corresponds to Period V according to a general chronological scale of the Ghaligai rock-shelter. Stage II belongs to the transition period—from Period V to Period VI of Ghaligai. As for the burials the inhumations, judging from iron artefacts, can be dated to Period VII according to the chronology of the Swat graveyards,[47] i.e. after inhabitants left this part of the settlement (Areas A and B) and used it as a necropolis.

Area E (18 × 4 m.) presents the most complete picture of Aligrama occupation. 14 layers and 8 chronological stages can be distinguished. The earliest structure (wall u) was unearthed in layer 13—Stage I according to G. Stacul and S. Tusa.[48] Wall t belonging to the second stage is separated from an older wall by layers 12 and 11. Practically pottery does not occur here. The floor of wall t is at layer 10. The preceding period is directly followed by Stage III which is represented by wall q in layer 9. Stage IV is separated by layer 8; wall p is in layer 7. Stage V corresponds to walls l, m and n in layer 5. Walls i, j, k are cleared in horizon 4a and the structures are 1 m.high—Stage VI. Stage VII is represented by walls a, c, d and f; the floor is at the layer 2a. Layer 3 separates Stage VII from the preceding Stage. The last period VIII is represented by walls b and e; the floor is at the layer 2 level. According to ceramic assemblage (Figs. 6, 7 and 8) the investigators of Aligrama consider Stage I of Area E as belonging to the earliest period of the settlement. They identify Stage I with Period IV (Ghaligai chronology). Stages II-VI correspond to Period V and Stages VII and VIII to Period VI.[49]

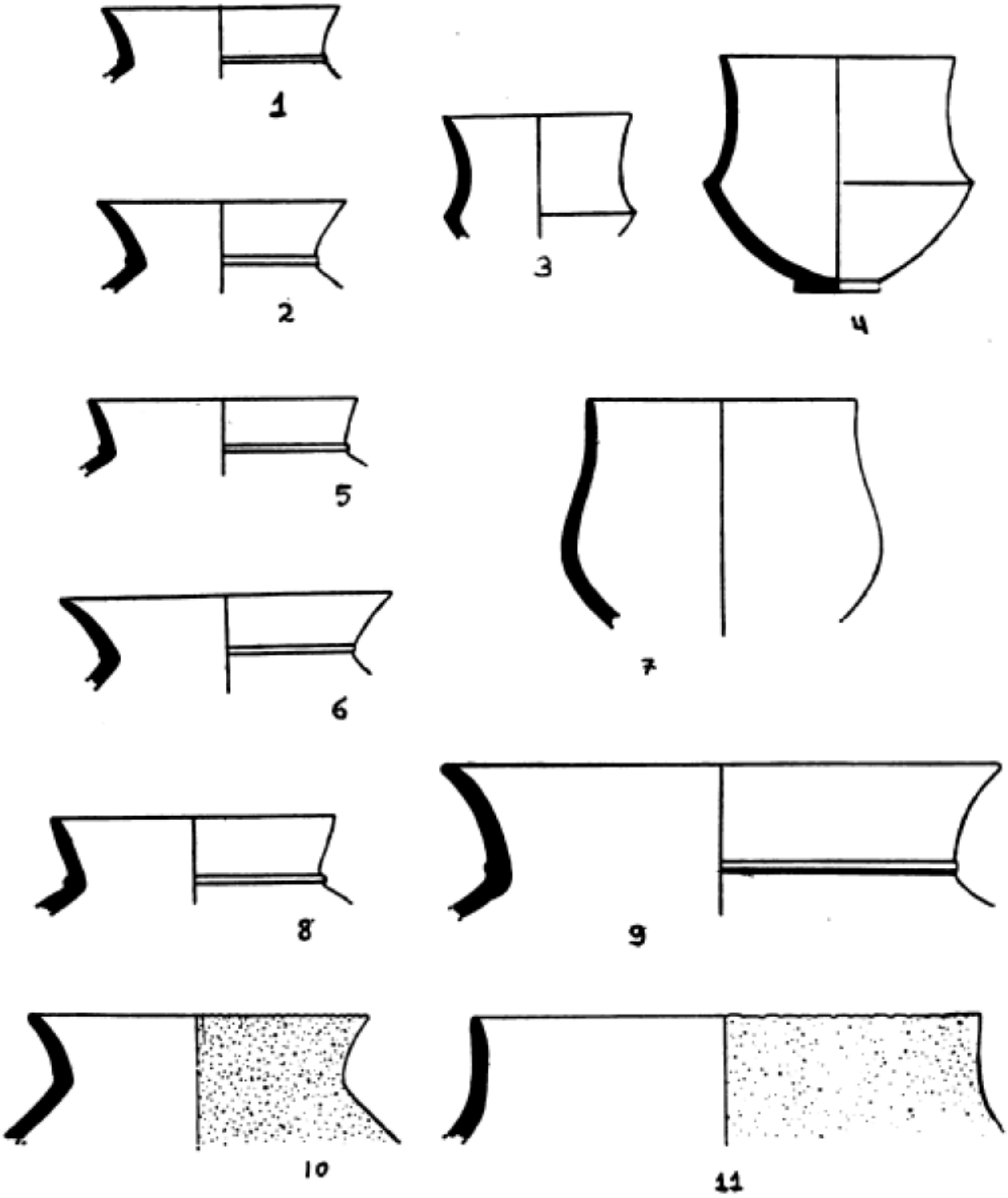


Fig. 6. Pottery of Area E of Aligrama: layer 14–no. 11; layer 13–nos. 1, 2, 5, 6, 7, 8 and 10; layer 12–no. 4; layer 11–no. 3; layer 10–no. 9. Scale 1:4 (after G. Stacul)

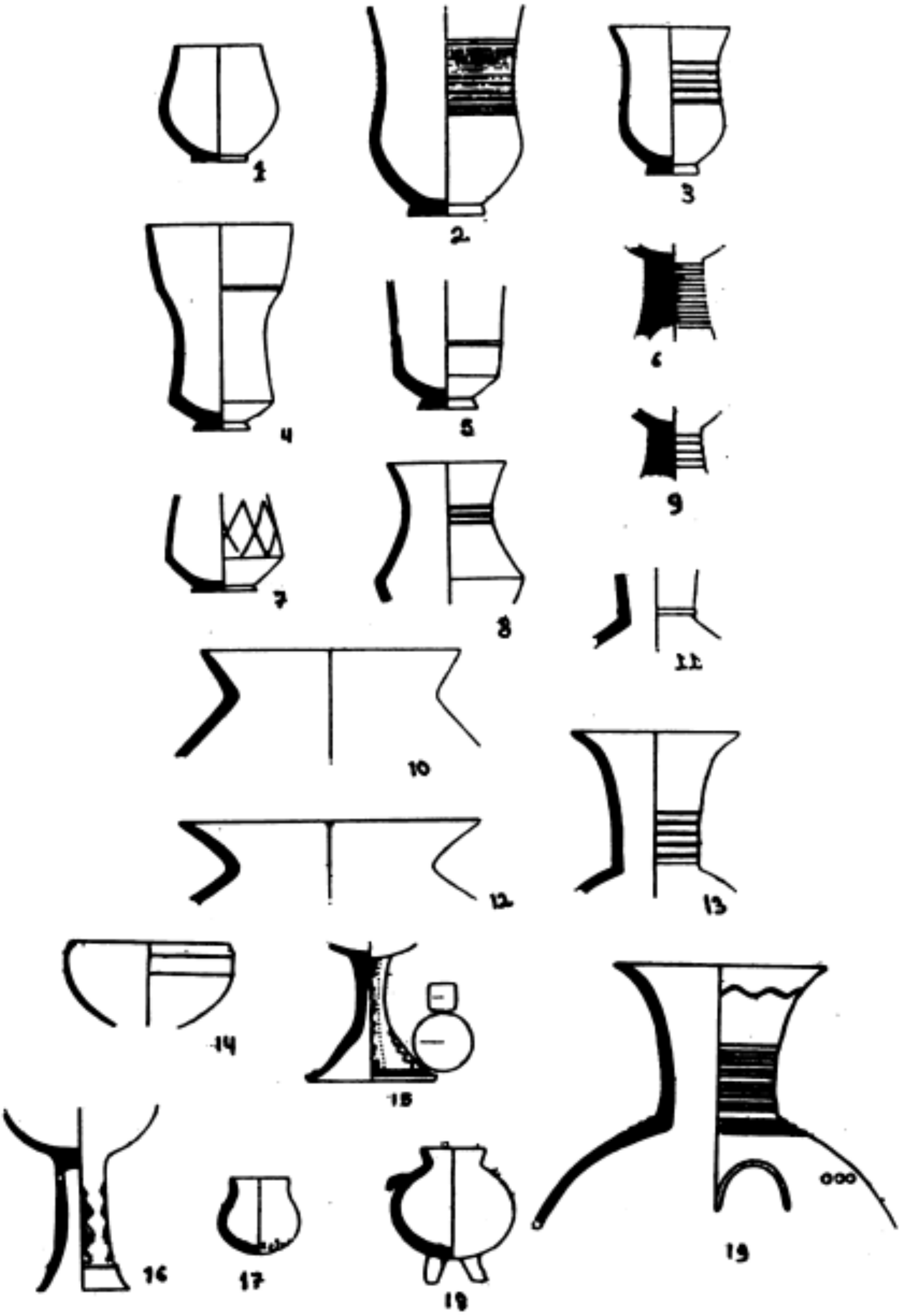


Fig. 7. Pottery of Area E of Aligrama: layer 10–nos. 11 and 13; layer 9–no. 8; layer 7–nos. 3, 9 and 10; layer 6–nos. 6 and 12; layer 5–nos. 2 and 4; layer 4a–nos. 5 and 7. Pottery of Area B: layer 3–nos. 14-18. (after G. Stacul).

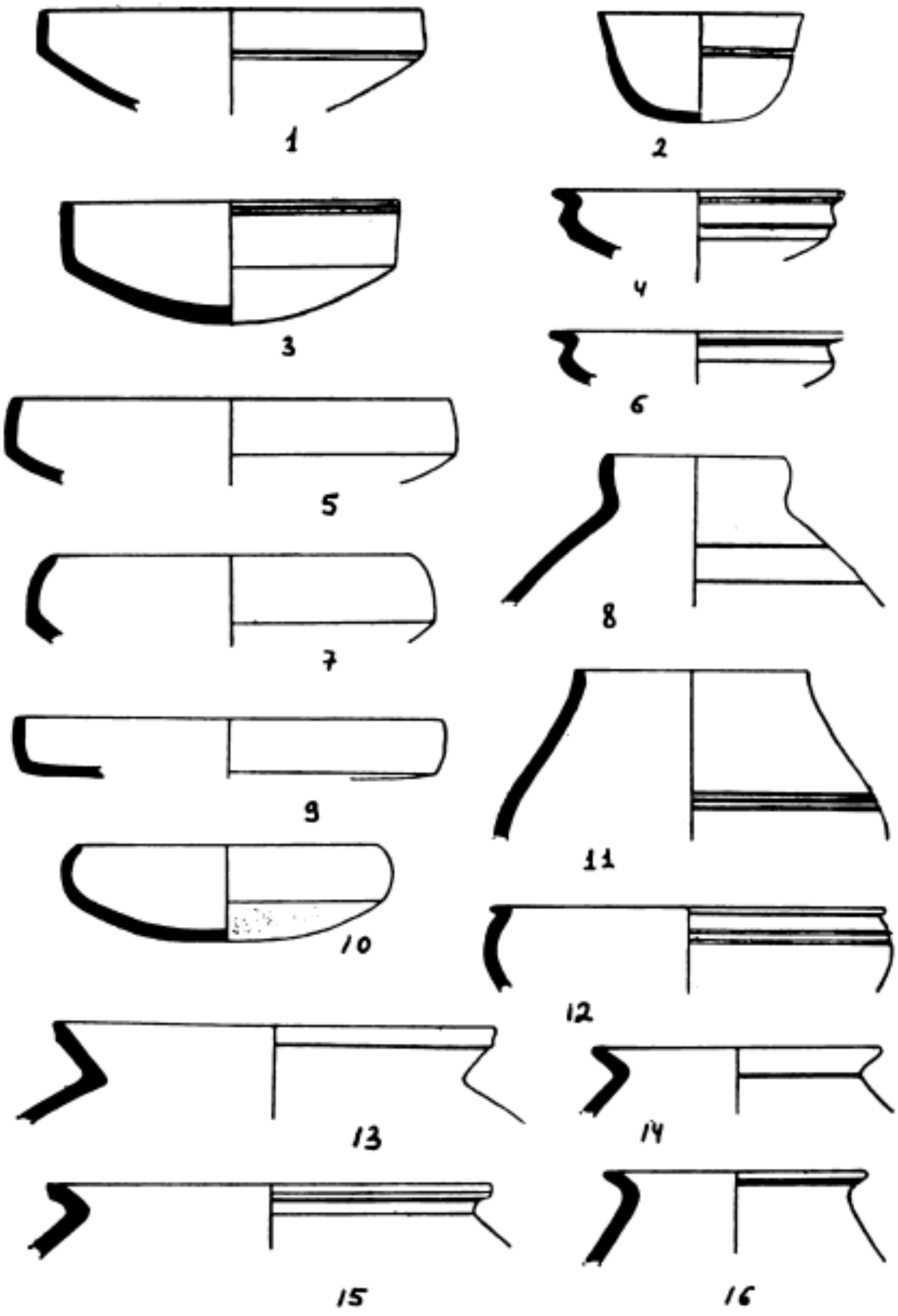


Fig. 8. **Vessels of Area E of Aligrama:** layer 2a–nos. 1-7, 9, 10; layer 2–nos. 11-16. (after G. Stacul)

The stratigraphy in Area D is analogous to that in Area E. There are several radiocarbon dates for Area D: layer 13 – 1500 ± 50 B.C., 1400 ± 40 B.C., 1690-1710 B.C.; layer 10 – 1140 ± 40 B.C., 1240 ± 50 B.C., 1460 ± 60 B.C.[50]

There are three radiocarbon dates for layer 7, Area E: 1120 ± 230 B.C., 1200 ± 240 B.C., 1380 – 1400 ± 240 B.C.[51]

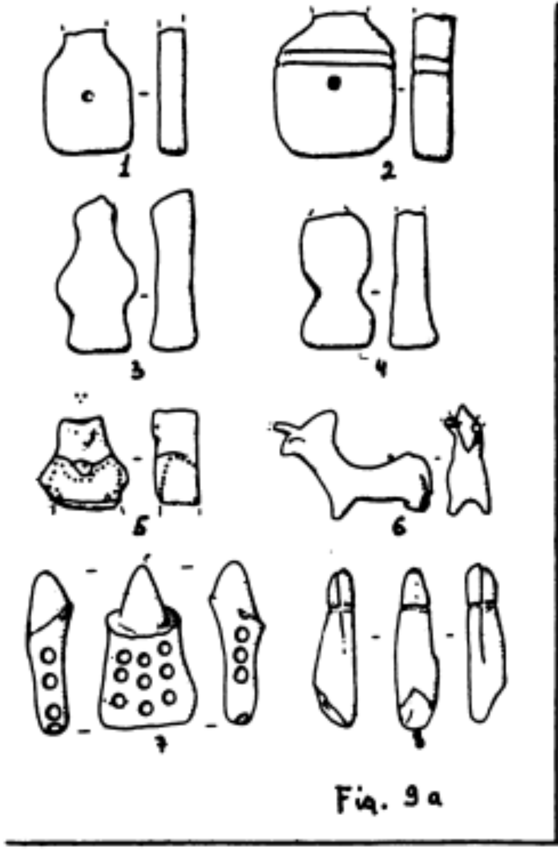
Area F is situated 10 m. away from Area E. It has five horizons containing structural remains. Lower layers (5-3) belong to Period IV (Ghaligai chronology). Layer 2 with layers 2a, 2b and 2c correspond to Period VI, Ghaligai.

Area K is exposed on the hill-top (9×3 m.). Five main horizons can be distinguished here. Lower horizons (4 and 5) are attributed by archaeologists to the Mauryan times like the settlement of Harsada (4th-2nd centuries B.C.).

Life at Aligrama began in the second quarter of the second millennium B.C. (Period IV, Ghaligai chronology). Stage I is characterized by stone walls made of rough stones with clay mortar. The walls are 0˙5 m.thick (layer 13, Area E). The pottery can be divided into three groups: (i) grey to brown vessels (Fig. 6, nos. 10 and 11) with sand admixture (brown-gritty) and impressions of fabric on the bottom; (ii) black burnished pottery (Fig. 6, nos. 1, 2, 5-8) sometimes with marks of the wheel-turning; and (iii) red thrown ware painted black (only 3%). Bone pins (Fig. 9b, 4 and 5) were found near vessels. The pins were ornamented with incised double circles. Nephrite objects were encountered.

In Stage II of Aligrama development, which corresponds to Period V (Ghaligai), a noticeable extension of the boundaries up to 10 *ha*[52] can be observed. Stone walls, as in Stage I, are carefully built of small rough stones or sea-worn pebbles with clay mortar. The walls are 1 m. 50 cm. high. Sometimes for ensuring stability limestone slabs are installed in the corners of the room or in doorways. The base is always made of stone, the walls themselves built of clay or unbaked bricks.[53] There is a common plan; all rooms are paralleled with one another and arranged along a long axis. The floor is coated with clay; slabs are scarce. There are special stands (fire-dogs) beside hearths. As a rule there are grain-grinders and an oval-shaped stove in the rooms. The stove has symmetrically-drilled holes at the axis edges of the slab. S. Tusa holds that in appearance stoves resemble a man's figure. He associates stoves with anthropomorphic cinerary urns which were found in burials.[54] Large vessels were revealed outside rooms (vessel's body is about 0˙80 m. in diameter). It is likely that they were used for keeping water or grain.

Pottery of Stage II, Aligrama, is typical of that at the Swat cemeteries with the exception of some fragments of vessels belonging to the preceding stage.[55] Silvi Antonini and G. Stacul distinguish three basic types of ware in terms of technology: (a) grey thin-walled vessels—baking is uneven and the exterior surface is polished; (b) red thin-walled vessels, hand-made or thrown, bearing some traces of polishing—baking is uneven; (c) large wheel-turned red vessels.[56] The following shapes



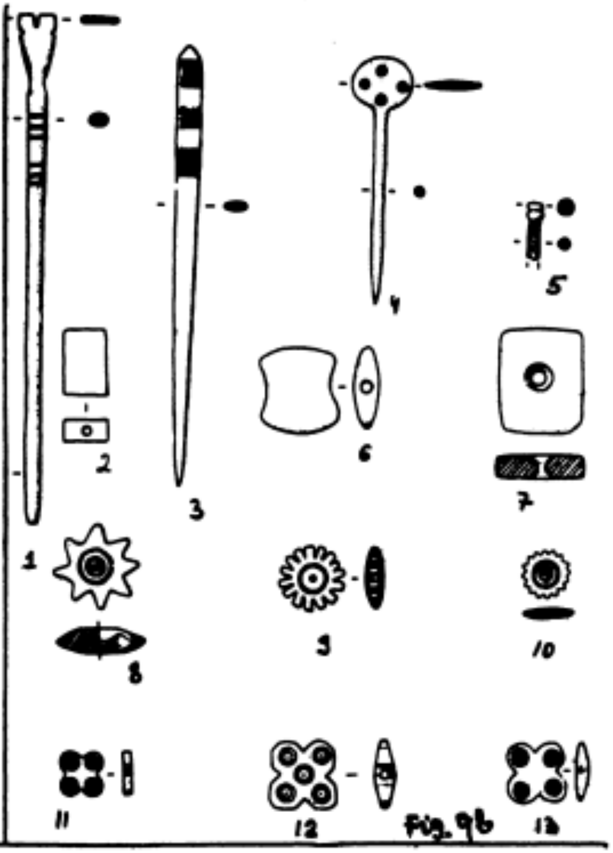


Fig. 9a. Terracotta figurines (Ghaligai Period IV): Loebanr–nos. 1, 3, 4 and 6; Bir-kot-ghundai–nos. 2, 5 and 7; Ghaligai–no. 8 (stone). (after G. Stacul)

Fig. 9b. Bone and stone objects (Ghaligai Period IV): Loebanr III–no. 1; Bir-kot-ghundai–nos. 2, 3 and 6; Aligrama–nos. 4 and 5. Scale 1:1 for 1, 3, 4, 5 and Scale 1:4 for nos. 2, 6-13 (after G. Stacul)

are typical of Period V, Ghaligai: VT 1, VT 18, VT 19, VT 24, VT 27, VT 68, VT 69 (Fig. 6, nos. 3, 4 and 9; Fig. 7, nos. 1-13 and 19). With regard to layers[57] belonging to the transition period (from Period V to Period VI, Ghaligai chronology) the following types of vessels are common: VT 4, VT 5, VT 7, VT 8, VT 9, VT 10, VT 15, VT 20, VT 21, VT 36, VT 38, VT 68, VT 80, VT 81, VT 82 and VT 83 (Fig. 7, nos. 14-18).[58]

Of interest are bronze objects: a needle of TM 6 Type and a pin of OM 6 Type. There are two types of spinning-wheels: TT 1 and TT 2. All types of ceramics and objects form a common feature of graveyards.[59] Mention may be made of an anthropomorphic figurine (Period V, Ghaligai chronology). Only its upper part with conical projections has survived: the arms and head are of triangular shape; the facial traits are not marked. The top deposit at Aligrama produced layers belonging to the Kushāṇa and Mauryan times.

IV

The settlement of Bir-kot-ghundai is also important. It is situated 20 km. from the city of Mingora at the hill near the present Barikot city on the left bank of the Swat. A. Stein identified Barikot with ancient Bazira of the Macedonian Alexander's time.[60] The excavations conducted by G. Stacul in 1977 and 1978 revealed at the base of a hill an ancient settlement which existed for several periods of the development of the Swat culture.[61] One or two km. away from Bir-kot-ghundai G. Tusa discovered a graveyard which most likely belonged to this settlement.[62]

The first excavation-site, Area A (9·2×5·6 m.) was laid in 1977. It showed 12 layers in vertical deposit from the top to the bottom: layer 1–humus; 2–cultural layer containing ceramics; 3–sterile layer; 4–cultural layer containing charcoal, potsherds and stone wall A of 50 cm. in width; 5–layer with scanty potsherds; 6–charcoal and pottery in abundance; 7–wall B was exposed and the clay floor was at the level of horizons 7 and 8; 8–charcoal and potsherds in abundance; 9–produced disconnected bones of two skeletons; 10–wall C (0·8 m. high) built of stones and pebbles; 11–the layer corresponds to layer 10; layer 12 is virgin soil.[63]

The excavations in 1978 in Areas B and C, next to Area A, enlarged the chronological limits of the site. In the oldest layer (11) two dwelling pits (Area B) and a hearth (Area C) were excavated. Layer 10 showed the continuation of wall C (Area B) and layer 9 produced four storage-pits (Area C).[64] In view of the stratigraphy of Areas A, B, C and the analysis of ceramics G. Stacul distinguishes four Periods of the existence of settlement: I–layers 10 and 11; II–layers 8 and 9, III–layers 7-5; IV–layer 4. According to Ghaligai chronology, the first period (Stage) corresponds to Period IV, Period (Stage) II to intermediary stage between Periods IV and V, Period (Stage) III to Period V and Period (Stage)IV to Period VII.

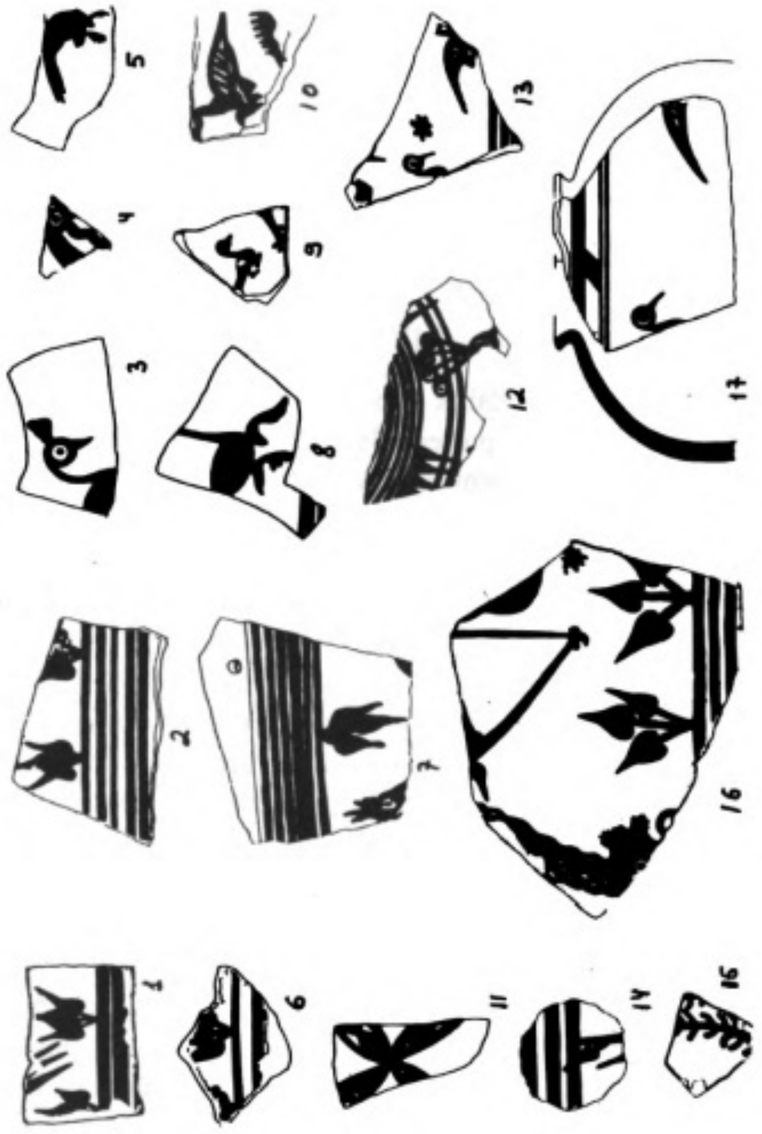


Fig. 10. Painted pottery (Ghaligai Period IV) of Bir-kot-ghundai (after G. Stacul)

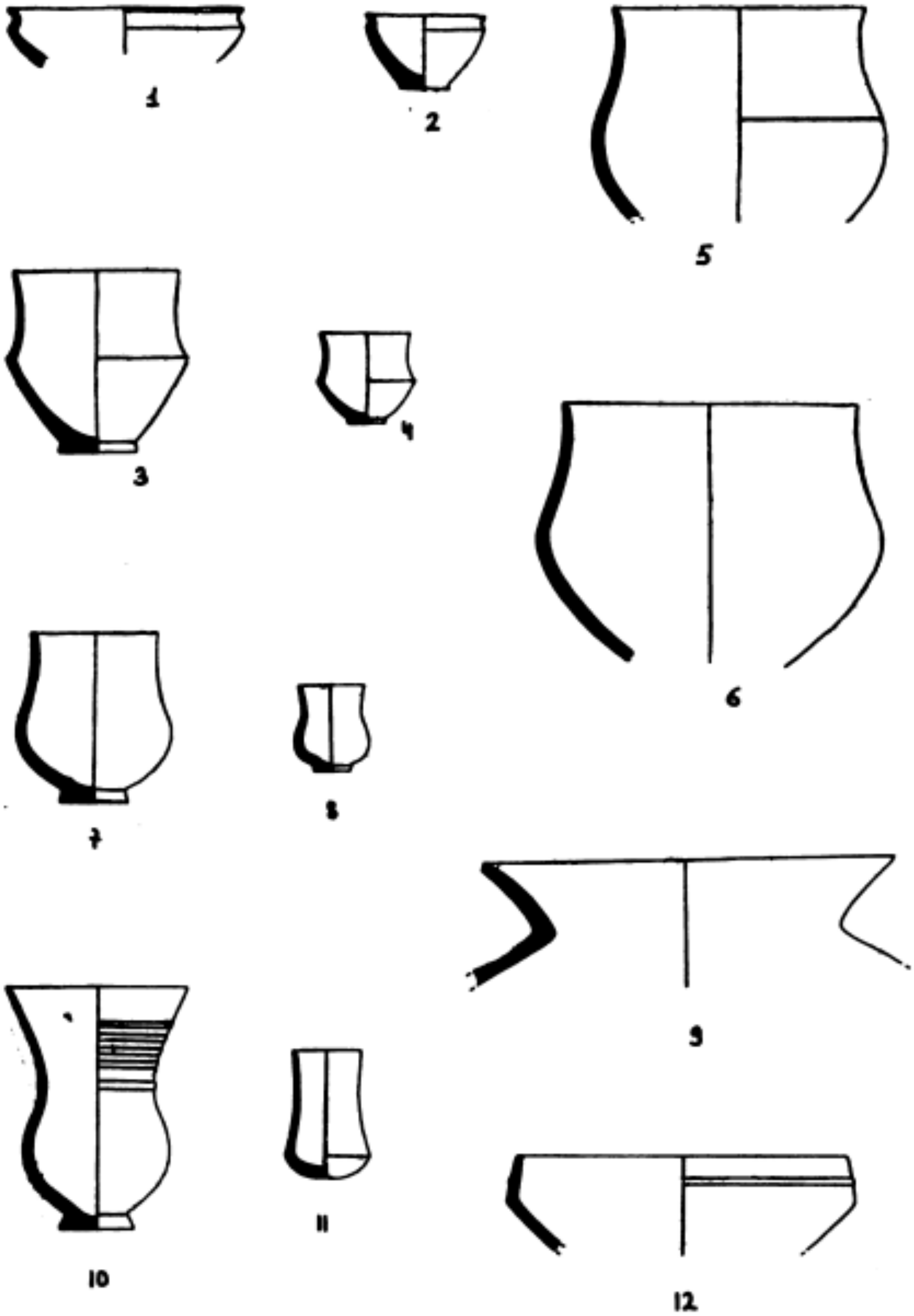


Fig. 11. Vessels of Bir-kot-ghundai: layer 8–nos. 1-6; layer 7–nos. 7, 8 and 10; layer 6–no. 9; layer 4–nos. 11 and 12. (after G. Stacul)

The first period (Stage) of Bir-kot-ghundai includes structural remains of stone constructions with square rooms and two dwelling-pits. The stone structures cover the pits.[65]

Ceramics can be classified in three groups: a considerable percentage constituting black to grey burnished ware (44%); grey to brown vessels with considerable sand-admixture (brown-gritty) being 36%; red pottery painted black—19%.[66] The first group is characterized by tall-stemmed goblets, by goblets with a wavy profile and a flat brim (Fig. 12, nos. 7, 8, 14, 21). Many vessels have been turned on a slow wheel. The second group includes globe-shaped and oval-shaped vessels with wavy or flat brim. There are impressions of fabric on the bottom (Fig. 12, no. 2). Red pottery is of good quality with red, orange to red or brown to red angobe. The vessels were turned on a fast wheel. A variety of forms is represented by stemmed goblets, globe-shaped vessels on the pedestal, shallow bowl and wide-mouthed household pots. The main bulk of pottery consists of black painted ware featuring linear motifs (horizontal and wavy bands), geometric designs (chequer motifs, stars), floral figures (*pipal* leaves, the four-leafed motif), faunal figures (zoomorphic pictures of cattle, peacock and other birds); (Fig. 10, nos. 1-17). Stylized anthropomorphic representation also occurs.

Of interest are primitive terracotta figurines with a flat body. The eyes and nose are marked with dots (Fig. 9a, no. 5). At Bir-kot-ghundai alongside spinning-wheels and bone pins (which are common for Period IV, Ghaligai chronology), faience pendants (Fig. 9b) emerge for the first time.

The layers 11 and 10 of Period (Stage) I are directly followed by the horizon of the second period (layers 9 and 8). In addition to the above-mentioned ceramic groups there occurs a new group of grey vessels. Three types of goblets can be recognized: goblets with broken shoulders (Fig. 11. 1-6), goblets with wavy profile and shallow wide-mouthed goblets. Some terracotta figurines have flat body and branch-shaped arms. Another type is also flat-bodied but ornamented with impressed circles; there is a conical projection instead of head (Fig. 9a, no. 7).

The third and fourth periods of the settlement-development are marked by stone structures with clay floors. Pottery assemblage is typical for the ware of the Swat cemeteries. These are grey and red vessels (Fig. 11. 7-10), VT 18, VT 21 Types (Period III); VT 10 and VT 25 Types (Period IV) (Fig. 11. 11, 12). The upper layers contain objects made of iron. It is most likely that Period III of Bir-kot-ghundai would correspond to the first stage of the Swat graveyards (Period V, Ghaligai chronology). Period VI was not represented at the settlement. G. Stacul considers Period IV as corresponding to Period VII (Ghaligai chronology).

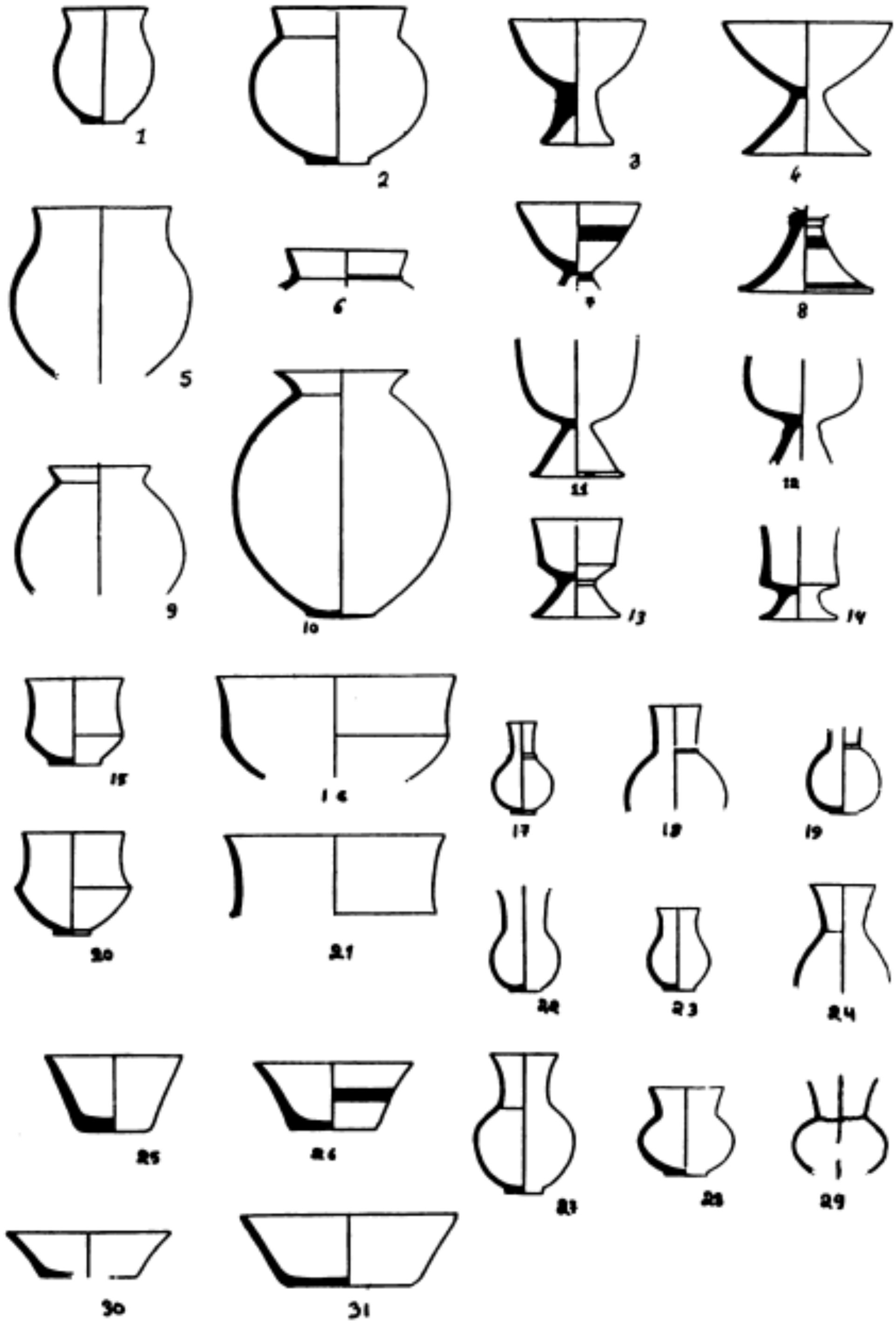


Fig. 12. Vessels (Ghaligai Period IV): Loebanr III–nos. 1, 4, 5, 10, 12, 13, 15-19, 22-25, 27, 29 and 31; Bir-kot-ghundai–nos. 2, 7, 8, 14, 21 and 26; Aligrama–nos. 6 and 20; Kherai–nos. 3 and 28. (after G. Stacul)

V

The settlement of Loebanr III, situated 4 km. from Mingora at the hillside, on the bank of the Jambi (the Swat's tributary) plays an important role in the Swat culture. The excavations directed by G. Stacul were carried out in 1968, 1976 and 1979.[67] Four layers referring to one chronological horizon, that is Period IV (Ghaligai chronology), can be distinguished here.

Eight excavation-trenches were dug: AA (1968), A-E (1976) and F-H (1979) (Fig. 13. 1). Area H (13×8 m.) (Fig. 13. 2, 3) gives the best idea of the stratigraphy. The top humus layer (1) is 0˙2-0˙3 m. thick. There is a layer of grey soil (2) below, 0˙6-0˙7 m. thick containing potsherds. Layer 3 is dark-brown with pottery fragments and animal bones. Lower layer (4) produced bases of stone walls, preserved to a height of 0˙25-0˙35 m. The floor and a hearth were unearthed. In virgin soil itself 10 storage- and dwelling-pits were exposed (Fig. 13. 3).[68] The largest Area A (15×17 m.) has similar stratigraphy. In Area A under the base of stone walls in layers 3 and 4 a dwelling-pit (7˙7×6˙6 m.) with vertical walls and 0˙4-0˙7 m. deep was exposed. It was filled with dark-brown soil containing animal bones and pottery fragments. A thin clay coating[69] covered the floor. There was a large hearth (about 3 m. in diameter) in the southern part of the pit. Several types of storage- and dwelling-pits dug in different Areas in the virgin soil can be determined: (1) oval pits with vertical walls (pits A 3, 37, J 3, H 5), 1˙4-3˙5 m. in diameter, 0˙65-1˙3 m. deep; (2) round pits (A 1) where depth exceeds diameter (ht.=2˙8 m., dia=2˙75 m.); (3) round pits (A 4, F 1, H 2), conical narrowing upwards, from 0˙8 to 1˙25 m. deep; the bottom diameter from 1˙75 to 2˙75 m. and diameter from 1˙58 to 1˙95 m.; (4) very large and shallow pits of oval shape with nearly vertical walls (7˙7×6˙6 m., ht. from 0˙4 to 0˙7 m.); (5) octagonal pits, 3˙2 m. in diameter and 0˙4 m. in height. Judging by size and the presence of hearths, the last two types were used as dwelling-pits, slightly dug into the ground. Some small holes bearing traces of wooden poles (0˙15-0˙25 m. in diameter) were found all around pits.

Pottery material at Loebanr III is similar to that at Bir-kot-ghundai in the very early period. Three main groups of pottery can be recognized: (1) black to grey burnished pottery; (2) grey to brown ware with considerable sand-admixture (brown-gritty); and (3) red pottery painted black. One more group of ware is widespread at Loebanr III and absent from Bir-kot-ghundai: hand-made brown vessels, the exterior surface being coarse. The first two groups represent 90% of the total material. Area H shows the following percentage: the first group of pottery accounts for 43%, the second 37% and the third 15%. The fourth group in Stacul's opinion resembles the patterns of Period III (Ghaligai rock-shelter), layers 16 and 17.[70]

Black to grey burnished ware is represented by tall-stemmed vessels, goblets on conical pedestals, "bottles", wide-mouthed bowls (Fig. 12). The second group consists of large pot-shaped vessels (Fig. 12. 12, 5) ornamented by belts in relief. Painted pottery includes narrow-necked vessels with globe-shaped body and wide-mouthed bowls.

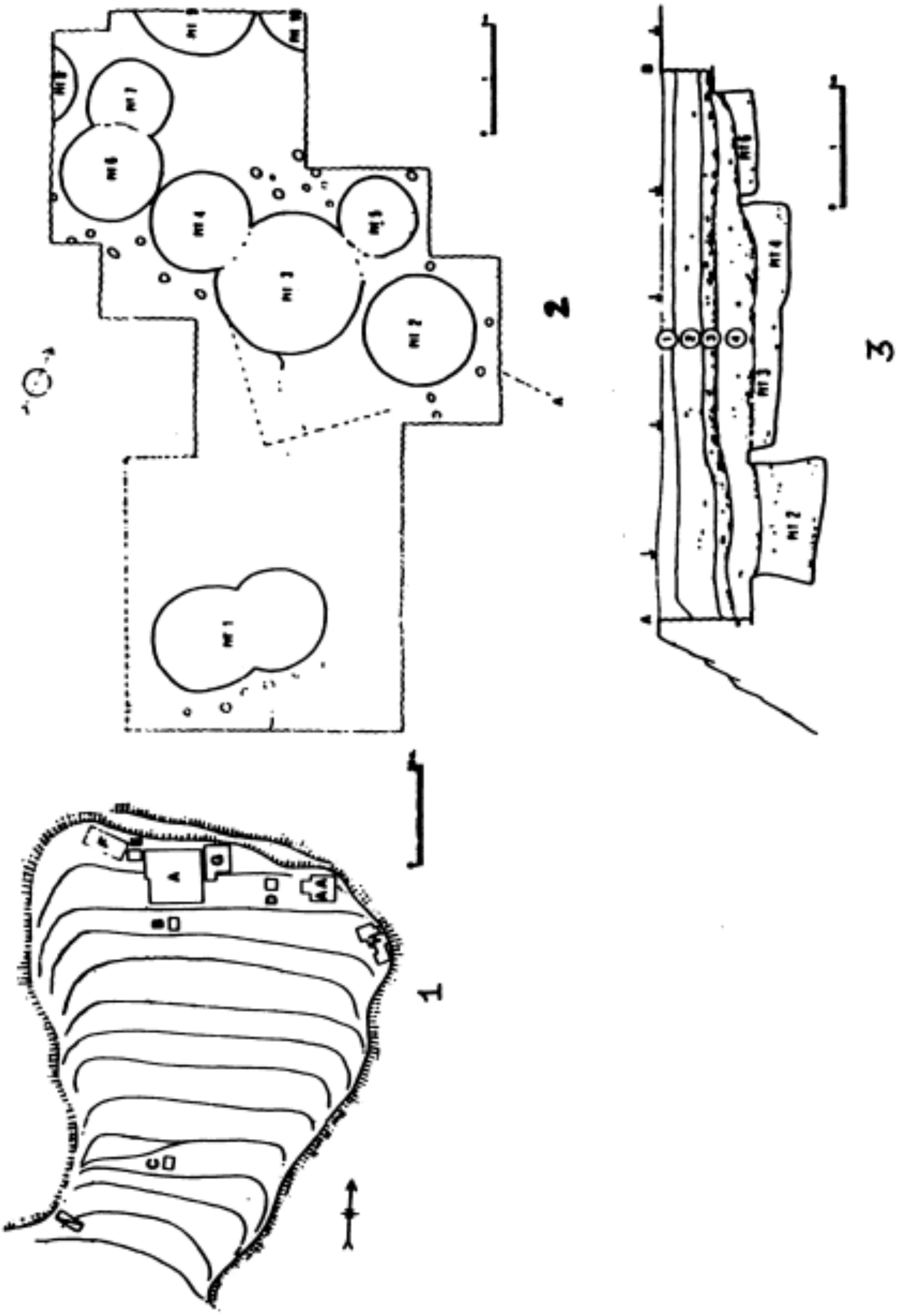


Fig. 13. 1. Plan of excavated sites at Loebanr III (after G. Stacul)
2 and 3. Plan and cross-section of Area H, Loebanr III

The pottery is painted black (horizontal bands). Graffiti also occur: zebu figures and geometrical design.

Near hearths on the floor alongside the vessels were found terracotta figurines of humped bulls (zebu) and primitive anthropomorphic figures (Fig. 9a. 1, 3, 4 and 6).[71] Of special note are nephrite objects such as pendants which are known in Neolithic cultures of north China as magatama,[72] miniature axe-amulets, stone or bone rectangular knives with two little holes, polished bone pins with the head divided into two parts (Fig. 9b. 1).

There are several radiocarbon dates[73] for lower layers of Loebanr III, the horizon of storage- and dwelling-pits:

(1) P-2583, pit 1, layer (5) – 1430 ± 90 B.C.;
(2) P-2584, pit 1, layer (6) – 1280 ± 60 or 1500 B.C.;
(3) P-2585, pit 1, layer (7) – 1400 ± 60 or 1600 B.C.;
(4) P-2586, pit 2, layer (5) – 1510 + 60 or 1690 B.C.[74]

VI

One more stratigraphically-significant settlement has been excavated at Damkot by Pakistani archaeologists.[75] Damkot is located on the right bank of the Swat near Chhakdara and has a good position, as it lies along the road which connects south-east Afghanistan with Swat and Buner. The passes of Malakand and Shah-kot connect Damkot with the Mardan and Peshawar valleys. A. Rahman distinguishes five periods, of which only the first one belongs to prehistorical times. The following period is placed in the 2nd century B.C.-1st century A.D. Two lower layers, (12) and (11), containing stone structural remains fall on Period I. The first layer (12) is characterized by painted black pottery; one of the potsherds bears the figure of a peacock. Grey ware prevailing in layer 11 is typical for early burials of the Swat graveyards. A. Rahman compares the painted pottery with that at Ghaligai (layers 19 and 18) and grey ware with Ghaligai (layers 17, 16 and 15), i.e. with Periods II, III, IV and V according to G. Stacul.

VII

The settlement of Balambat has also been studied by Pakistani archaeologists. It is situated on the right bank of the Panjkori (the Swat's tributary). Across the river there is the graveyard of Timargarha.[76] At Balambat as well as at Aligrama were found burials under structural remains. The stratigraphical correlation of burials with occupation-layers is not always clear. A. Dani distinguishes five chronological stages (I-V) ascribing them to the Timargarha graveyards. Burials with cremation were found under the bases of stone walls in northern part of the site (Balambat III). Besides, were discovered round or rectangular rooms with dump pits which were also dug in the virgin soil[77] as well as graves. Along with pottery material and a terracotta figurine there occur bronze and iron

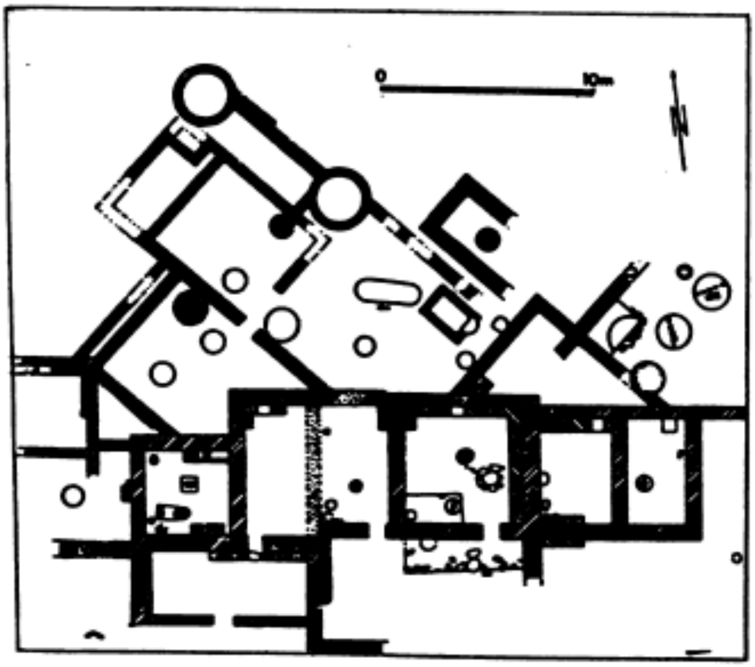


Fig. 14. Plan of settlement at Balambat: Achaemenian period shown by hachures; pre-Achaemenian period shown in black colour; burials indicated by net-pattern (after A.H. Dani)

objects. *Terminus ante quem* of Balambat can be defined by structures (southern Area) belonging to Achaemenid times (Fig. 14). The last stage (5) of the development of the settlement belongs to the Kushāna times.

VIII

As a rule settlements and cemeteries are located in extremely fertile plains. Favourable environmental conditions are good for cultivating grain-crops and other plants. So on the whole the Swat population consisted of farmers. This conclusion can be confirmed by Palaeolithic evidence at Loebanr III and Aligrama.[78] The main crops were barley (Hordeum vulgare, Hordeum vulgare nudum, Hordeum disticum), wheat (both of three varieties), rice, rye, lentils, peas and grapes. According to ethnographical data in the Swat valley two yearly harvests are grown, as in winter it rains hard and it is hot in summer.

Osteological remains of mammals, which were found both in dwellings and graves, and animal figurines such as humped bull and horse, furnish evidence of a great significance of cattle-raising in the Swat economy. At Aligrama and Loebanr III 3067 bone specimens[79] were studied. Eighteen species (9 wild and 9 domestic animals) can be recognized: porcupine, hare, dog, wild cat, tiger,[80] donkey, horse, camel, pig, deer, water buffalo or arni, zebu (humped bull), gaur, markhor, domestic sheep and goat. Loebanr III did not yield bones of camel or water buffalo. At Aligrama porcupine, hare, gaur and markhor were absent. Among ruminants zebu played an important role. At Loebanr III (Period IV, Ghaligai chronology) zebu accounts for 69·6% of the total osteological material; at Aligrama (Period V, Ghaligai chronology) 59·4% and 83·9% in Mauryan times. At Loebanr III domestic sheep makes up 26·6% and at Aligrama in the latest layers 7·8%. Pig constitutes low percentage: at Aligrama 4%, at Loebanr III 2·5%.

Hunting a deer, markhor and other games played a certain role in the Swat economy. All wild animals except tiger are represented in contemporary local fauna.

Regarding the object-production it is sometimes difficult to differentiate between home-made objects and their craft industry. This is an important point in view of ceramic assemblage. On the one hand, there occur hand-made red ware of bad quality; baking is uneven. On the other hand, there occur thin-walled vessels of high quality, made on a fast turn of the wheel. There is every ground to believe that the latter come from pottery-making workshops.

The copper reserve in the area of Swat monuments allows us to suppose the use of local ore deposits. To all appearances bronze objects were made on the spot: a mould was found at Bir-kot-ghundai.[81] Iron objects are not numerous and give no proof of their local production on the spot. Gold and silver objects were found in graveyards. G. Tucci[82] studied the works by Strabo, Herodotus and Plinius on Dardic tribes who lived in the mountains and valleys of Swat and Indus. The classical authors called them "ants digging for gold". Chinese pilgrims also wrote that from ancient times Swat was known for selling gold. Typologically bone objects (pins, needles) are similar to those made of bronze. It is most likely that the former are also local products. Semiprecious stones (red, white and black quartz, agate, magnesite and slate) were used for bead-making. All these rocks are available in the Swat mountains.

The excavations at the settlements of the Swat valley and neighbouring valleys make it possible to give a general idea of their settling from the late third-the mid-first millennia B.C. The earliest evidence of Neolithic culture is known at Ghaligai I (layers 23–21). Close affinities to Ghaligai I pottery are found at Sarai Khola I in the Potvar valley, 3 km. south-west of Taxila, but neither in south Turkmenia (Geoksur II, Anau II) nor at Mundigak III as G. Stacul supposes. The Sarai Khola diggings as well as the Ghaligai ones were made by the Pakistan Archaeological Department[83] in 1968-1971. Four chronological periods can be distinguished: I, II, III and IV. There were found dwelling-pits, traces of coal industry, hand-made red pottery with polished exterior surface. Certain similarity can be traced in vessel-forms.

Period II (layers 19 and 18, Ghaligai) of Sarai Khola II permits us to believe that the Indus Valley cultures influenced painted pottery (Fig. 4) to a great extent. Most vessels are wheel-turned covered with red clay and ornamented with black horizontal bands, *pipal* leaves (only at Sarai Khola). Globe-shaped vessels, tall-stemmed vases, lids with cone-shaped handles (Fig. 4) are typical. G. Stacul compares them with those found at Harappan sites (Harappa, Kalibangan I) and Mundigak IV.[84] Parallels with the early Harappan layers in Baluchistan (Anjira I, II) and Siakh Damb in Kalat,[85] with pottery in the Quetta valley, the so-called "Kil Mohammed"[86] style and Kot Diji (layers 4-16)[87] should be mentioned. The radiocarbon dating for layer 14 of Kot Diji is 2605 ± 145 B.C.[88]

Not all stratigraphical sections show Period III, Ghaligai (layers 17 and 16). This period is marked by absence of painted ware and by presence of coarse hand-made grey or reddish to brown pottery with fabric impressions on the bottom. G. Stacul considers this ware as coming from Burzahom I in Kashmir.[89]

Hand-made pottery of the early periods at Ghaligai, Sarai Khola I and Burzahom I considerably differs from that in India and Baluchistan and belongs to another cultural complex. Some scholars[90] ascribe the origin of northern Neolithic settlements to north China. Period III was the period of isolation and active consolidation with Kashmir cultural traditions and through them with China.

Beginning from Period IV of Ghaligai, the first settlements of the Swat culture proper arise at Aligrama, Bir-kot-ghundai, Loebanr III and Damkot. All the settlements are located by the side of the rivers, at the hill-top, at hill-side or in valleys. At first dwelling-pits (Bir-kot-ghundai and Loebanr III) were common. Then they were covered with stone structures (Bir-kot-ghundai, Aligrama and Damkot). It should be noted that at this time a change of building technique takes place. At Burzahom II dwelling-pits change for rectangular stone structures built from rough stones with clay mortar.[91] Black to grey burnished pottery (Bir-kot-ghundai–44%, Loebanr III–43%) prevails at all settlements in Period IV. Tall-stemmed bowls, goblets on conical pedestals, "bottles" and jars are typical pottery forms. The second group incorporates grey to brown ware with considerable sand-admixture (Loebanr III–37%, Bir-kot-ghundai–36%). Large pot-shaped vessels ornamented with relief-belts occur. There is red pottery of high quality, wheel-thrown, painted black (Bir-kot-ghundai–19%, Loebanr III–15%, Aligrama–3%).[92] One more group of vessels features Loebanr III. It was not found at other sites in Period IV. This group is made up of hand-made brown pottery with coarse exterior surface. According to G. Stacul it is close to that at the rock-shelter of Ghaligai.[93] As mentioned above, G. Stacul compares black burnished pottery with that at Burzahom II in Kashmir[94] and through Kashmir with that at Lung-Shan in north China. In this connection the scholar attributes some forms of black burnished pottery (tall-stemmed vases) to those at Hissar IIB and IIIB.[95] In G. Stacul's opinion connections between the Swat settlements in Period IV and Kashmir in the first half of the second millennium B.C. can be confirmed not only by unity of types of dwellings or black burnished pottery but also by other finds.[96] There occur objects made of nephrite which deposits are known in eastern Sinkiang. G. Stacul points out nephrite fang-shaped pendants with a little hole in the middle-magatama. There is a bead, the prototype of which is known in the Neolithic cultures of north China.[97] G. Stacul points out direct imports from China: rectangular stone knives with small holes[98] and two miniature axe-amulets.[99]

At Bir-kot-ghundai and Loebanr III red wheel-turned pottery, painted black, constitutes a considerable percentage. The forms of pots are similar to those in the Harappan culture,[100] Cemetery H. The Harappan tradition is traced in painting: *pipal*-leafed motifs, four-leafed rosettes.[101] Other ornamental motifs represented by stars, birds' heads can be connected with the Late Harappan H Cemetery[102] and Amri IIIc.[103] Faience star-shaped pendants, rosettes with incised concentric circles (Bir-kot-ghundai) and bone pins ornamented with incised circles (Aligrama) are also typical of Harappa.[104] Figurines of humped bulls (zebu) were often found near hearths. The tradition of their representation can be traced from the pre-Harappan and Early Harappan times at Rana Ghundai,[105] Amri I,[106] Mohenjo-daro[107] and Gumla.[108]

Period IV (Ghaligai chronology) is characterized by the formation of the Swat culture proper mainly on the basis of local Neolithic tradition (Ghaligai I, III, Sarai-Khola I, Burzahom I and the Harappan culture which starts diffusing in Period II, Ghaligai). The first recorded cemeteries—Kherai[109]—emerge in the late Period IV. Cultural contacts can be traced not only with southern cultures of the Harappan times and northern sites of Kashmir[110] but probably with cultures in China[111] as well as north-east Iran through Afghanistan.[112] G. Stacul points out an interesting publication on the Dar-i-Kur excavations in Badakhshan,[113] where pottery similar to that at Ghaligai, Period IV, was found.

Subsequent periods (Ghaligai V) are marked by noticeable changes in the Swat culture: (1) boundaries of settlements extend (Aligrama); there is a common planemetry, building technique improves; (2) numerous cemeteries and a new burial custom—cremation—appear; and (3) three basic types of ceramics of the preceding period change for new types and forms which are similar to ware at burial complexes: (a) grey thin-walled pottery; (b) red unadorned ware; and (c) large red vessels (VT 68 Type), often used in graves as cinerary urns. At the sites (Aligrama II, layers 2 and 3, Areas A and B; Bir-kot-ghundai II, layers 8 and 9), the cemetery of Kherai in the Gorband valley (Fig. 15. 1-13) relating to the transition period (from Period IV to V) some elements of the preceding period (black burnished pottery) and painted vessels (only at Bir-kot-ghundai) still remain.

Summing up, it should be said that Period V (Ghaligai chronology) has become a new stage in the formation of the Swat culture. The new stage was connected with ethnical migration of population who brought the custom of cremation and borrowed local cultural tradition.[114] Studies of the settlements of Swat culture having many

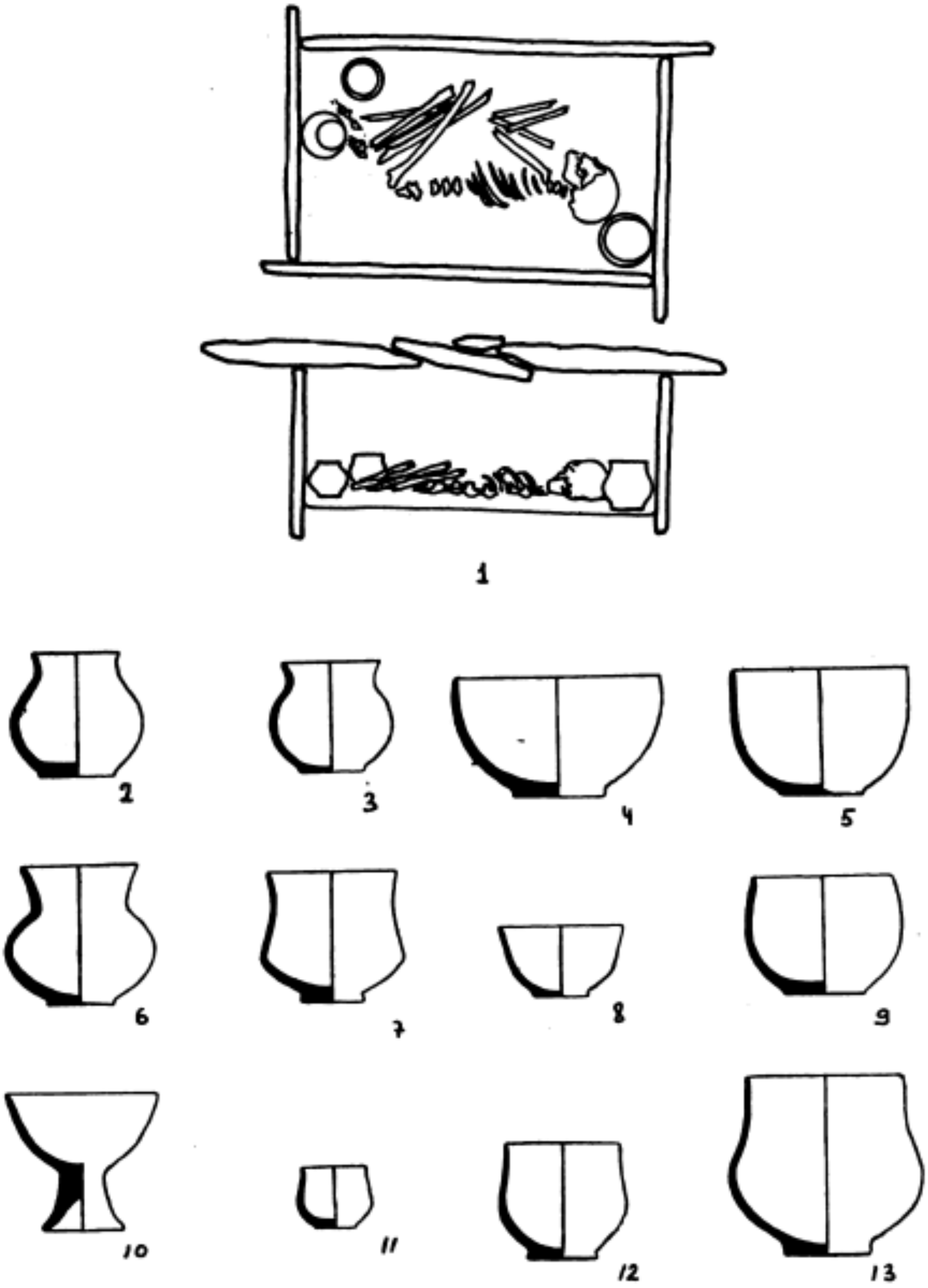


Fig. 15. Pots of the burial-ground of Kherai (after G. Stacul)

occupation-layers make it possible to give a clearer picture of the formation processes of the Swat culture in the early second millennium B.C. and its further development up to the mid-1st millennium B.C.

Synchronistic Table of Swat cultural Periods

Table 1

Sites							Graveyards (periods)	
Ghaligai	Aligrama			Bir-kot-ghundai	Loebanr III	Balambat		
	Areas A and B	Area E	Area F					
VII	graves			Stage IV (layer 4)		walls of Period III of Swat graveyards	III	Loebanr I, Katelai I
VI	Stage II (layer 3-2)	Stages VII-VIII	layers 2, 2a, 2b, 2c				II	
V (layers 15-13)	Stage I (layers 5-4)	Stages II-VI (layers 12-4)		Stage III (layers 7-5) Stage II (layers 9-8)		graves	I	
IV (layer 15)		Stage I (layers 14, 13)	(layers 5-3)	Stage I (layers 11-10)	layers 7-1		Kherai	
III (layers 17-16)								
II (layers 19-18)								
I (layers 24-21)								

Table 2

Period	Site	Laboratory No.	Dates	Calibrated dates
I	Ghaligai	R – 379	4245 ± 55	2970 B.C.
I	Ghaligai	R – 379	4180 ± 70	2920 B.C.
I	Ghaligai	R – 380	4200 ± 140	2940 B.C.
II	Ghaligai	R – 378	3760 ± 55	2180 B.C.
III	Ghaligai	R – 377	3455 ± 50	1950-1920 B.C.
IV	Loebanr III	P – 2583	3280 ± 90	1650 B.C.
IV	Loebanr III	P – 2584	3140 ± 60	1500 B.C.
IV	Loebanr III	P – 2585	3250 ± 60	1640-1600 B.C.
IV	Loebanr III	P – 2586	3360 ± 60	1730-1690 B.C.
IV	Aligrama	P – 2151	3010 ± 60	1360-1300 B.C.
IV	Aligrama	P – 2151	3350 ± 40	1710-1690 B.C.

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40. The material is classified according to Silvi Antonini and G. Stacul; See Silvi Antonini and G. Stacul, 1972, p. 13.
41. G. Stacul, 'Excavation near Ghālīgai . . .', 1969, p. 61.
42. *Ibid.*, p. 84.
43. *Ibid.*, p. 85.
44. Another two unexplored necropolises were discovered 8 km. away from Aligrama, at Nashrat on the left bank of the Shahdheri Khvar and 12 km. away from Arkot; See Stacul and Tusa, 1975, p. 291.
45. G. Stacul and S. Tusa, 'Report of the Excavations at Aligrāma . . .', 1975, pp. 291-321; G. Stacul and S. Tusa, 'Report of the Excavations at Aligrāma . . .', 1977, pp. 151-205.
46. G. Stacul and S. Tusa, 'Report of the Excavations at Aligrāma . . .', 1975, p. 306.
47. On the division of the Swāt burial grounds into periods see N.M. Vinogradova, 'Burial Custom of the Swāt population in North-west Pakistan', *Problemi interpritacii pamjatnikov kulturi Vostoka* (Moscow, 1991).
48. G. Stacul and S. Tusa, 'Report of the Excavations at Aligrāma . . .', 1977, pp. 156 and 157.
49. *Ibid.*, p. 159.
50. The analysis is made by the Radiocarbon Laboratory of Pennsylvania University (USA) with a correction.
51. The Laboratory of Physical Research in Ahmedabad, India. In our opinion the dates are too young. There are another two dates for Aligrama IV with a correction of Rome and Pennsylvania Universities: 1360-1300 B.C. and 1710-1680 B.C. See G. Stacul, 1987 and Table 2 of the present paper.

52. If Stage I is recorded only in Areas D and E (lower layers 14 and 13), Stage II includes layers 5 and 4 in Areas A and B, layers 10-4 in Area K and layers 5-3 in Area F.
53. One of the rooms contained fragments of bricks (0·10 × 0·15 × 0·30 m.).
54. S. Tusa, 'The Swāt Valley in the 2nd and 1st Millennia B.C. A Question of Marginality', *SAA 1977* (Naples, 1979), p. 685.
55. G. Stacul and S. Tusa, 'Report of the Excavations at Aligrāma . . .', 1977, p. 309.
56. Silvi Antonini Ch. and G. Stacul, *The Protohistoric Graveyards* . . ., 1972, p. 15.
57. Layers 3 and 2 in Areas A and B.
58. Silvi Antonini Ch. and G. Stacul, *The Protohistoric Graveyards* . . ., 1972, p. 16.
59. *Ibid.*, p. 36.
60. A. Stein, *An Archaeological Tour in Upper Swāt and Adjacent Hill Tracts*, Memoirs of the Archaeological Survey of India, No. 42 (Calcutta, 1930), pp. 20-29; A. Stein, *An Archaeological Tour in Gedrosia*, Memoirs of the Archaeological Survey of India, No. 43 (Calcutta, 1931).
61. G. Stacul, 'Bīr-kōṭ-ghuṇḍai . . .', 1980, pp. 55-65; G. Stacul, *Prehistoric and Protohistoric Swāt*. . . . 1987, p. 60.
62. S. Tusa, 'Notes on Some Protohistoric Finds in the Swāt Valley (Pakistan)', *EW*, 31, 1981, p. 111.
63. G. Stacul, 'Excavation at Bīr-kōṭ-ghuṇḍai (Swāt, Pakistan)', *EW*, 28, 1978, p. 139.
64. G. Stacul, 'Bīr-kōṭ-ghuṇḍai . . .', 1980, pp. 56 ff.
65. *Ibid.*, pp. 60 ff.
66. The percentage is given according to Area C. See G. Stacul, 1980, p. 57.
67. G. Stacul, 'Excavation at Loebanr III . . .', *EW*, 26, 1976, p. 25; G. Stacul, 'Dwelling- and Storage-Pits . . .', 1977, pp. 227-253; G. Stacul 'Loebanr III. . .', 1980, p. 67; G. Stacul, *Prehistoric and Protohistoric Swāt*, . . ., 1987, p. 55.
68. G. Stacul, 'Loebanr III . . .', 1980, p. 68.
69. G. Stacul, 'Dwelling- and Storage-Pits. . .', 1977, p. 227.
70. G. Stacul, 'Excavation at Loebanr III . . .', 1976, p. 25.
71. Dwelling- and Storage-Pits contained ten zebu figurines in all.
72. G. Stacul, 'Dwelling- and Storage-Pits . . .', 1977.
73. *Ibid.*, p. 253.
74. The analyses are made by the Radiocarbon Laboratory of Pennsylvania University (USA) with a correction of MASCA based on 5730 or 1650 years half-life. For Loebanr III (Period IV, Ghaligai) see Table 2.
75. A. Rahman, 'Excavation at Damkot', *AP*, IV, 1968-1969, pp. 103-226.
76. 'Timargarha . . .', 1967, pp. 238-239.
77. *Ibid.*, p. 242.
78. L. Constantini, 'Notes on the Palaeoethnobotani of Protohistorical Swat', *SAA 1977* (Naples, 1979).
79. B. Compagnoni, 'Preliminary Report on the Faunal Remains from Protohistoric Settlements of Swāt', *SAA 1977* (Naples, 1979), p. 697 etc.; G. Stacul, *Prehistoric and Protohistoric Swāt*, . . ., 1987, p. 155.
80. The last tiger was killed in Swat in 1887. B. Compagnoni, 1979, p. 698.
81. H. Müller-Karpe, *Jungbronzezeitlich-früheisezeitliche Gräberfelder* . . ., 1983, p. 95.
82. G. Tucci, 'On Swāt. The Dards and Connected Problems', *EW*, 27, 1977, p. 19.
83. M.A. Halim, 'Excavations at Sarai Khola', *AP*, 7 (Karachi, 1970-1971), pp. 23-115.
84. G. Stacul, *Prehistoric and Protohistoric Swāt*, . . ., 1987, pp. 103 and 104.
85. B. Cardi, 'Excavations and Reconnaissance in Kalat, West Pakistan: the Prehistoric Sequence in the Sarab Region', *PA*, 2, 1965.

86. W.A. Fairservis, 'Excavations in the Quetta Valley, W. Pakistan', *Archaeological Papers of the American Museum of Natural History*, 4, 1965, p. 256.
87. F.A. Khan, 'Excavations at Kot Diji', *PA*, 2, 1965, fig. 17, 5, 19, 6.
88. E.K. Ralph, 'University of Pennsylvania Radiocarbon Dates, III', *American Journal of Science Supplement*, I (New Haven, 1959), p. 511.
89. The settlement of Burzahom has been excavated for 30 years by Yale University and since 1959 by the Archaeological Survey of India. In Burzahom I there were found dwelling-pits with marks of wooden poles along the perimeter of the pit. The floor and walls were covered with clay. The dimensions of the pits are 4·57 m. in bottom diameter and 3·96 m. in depth. There were stone hearths at the entrance. Grey or black burnished vessels, coarse, badly-fired and thick-walled, were predominant. The vessels are hand-made, with fabric impressions on the bottom. Goblets and jugs with brims turning back were typical. There occur numerous bone and stone objects, among which rectangular knives with small holes are noteworthy. See Allchin, 1982, p. 111.
90. Bridget and Raymond Allchin, *The Rise of Civilization* . . ., 1982, p. 116.
91. G. Stacul, 'Loebanr III . . .', 1980, p. 75; S.P. Gupta, *Archaeology of Soviet Central Asia and the Indian Borderlands*, Vol. II (Delhi, 1979), p. 36; B.M. Pande, 'The Neolithic in Kashmir: New Discoveries', *The Anthropologist*, 17, 1970, p. 28; Madhu Bala, 'A Survey of Protohistoric Investigations in Jammu and Kashmir and a Review of Present Position', *The Anthropologist*, 22, 1975, pp. 13-14.
92. It should be taken into account that the site of Aligrama belongs to the late Period IV.
93. G. Stacul, 'Excavation at Loebanr III . . .', 1976, p. 25.
94. According to C-14 dates Period II, Burzahom lasted till 1700 B.C. In Period II Burzahom, as stated above, there was a change of building techniques: dwelling-pits were replaced by large houses with stone foundations. The only metal object is a bronze spear-head. Many graves were found between houses. In most cases the graves are oval and do not contain funerary stock. A skeleton is covered with red ochre. Practice of burying dogs together with their "master" is rather common. Besides, there were found burials of other animals—wolves and sheep. See Allchin, 1982, p. 113; G.M. Buth, *et al.*, *Neolithic Links—Central Asia and Western Himalaya—A Forgotten Link* (Jodhpur, 1986), pp. 69-70.
95. G. Stacul, 'The Gray Pottery in the Swāt Valley and the Indo-Iranian Connections (ca. 1500-300 B.C.)', *EW*, 20, 1970, p. 93.
96. Some Indian scholars consider the problem of direct contacts of Kashmir Neolithic finds with those of China debatable. See R.S. Bisht, 'Reflection on Burzahom and Semthan Excavations and Later Mythological Periods in the Kashmir Valley—Central Asia and Western Himalaya', G.M. Buth, *et al.*, 1986, p. 53.
97. G. Stacul, 'The Black Burnished Ware in the Swāt Valley (1700-1500 B.C.),' *SAA 1977* (Naples, 1979), p. 672; G. Stacul, *Prehistoric and Protohistoric Swāt*, . . ., 1987, p. 75.
98. G. Stacul, 'Excavation at Loebanr III . . .', 1976, p. 29.
99. G. Stacul, 'Excavation at Bīr-koṭ-ghuṇḍai (Swāt, Pakistan)', *EW*, 28, 1978, fig. 35.
100. J. Marshall, *Mohenjo-daro and the Indus Civilization* (London, 1931), T. XXIX, 2; LXXXII, 28; R.E.M. Wheeler, 'Harappa 1946: the Defences and Cemetery R37', *Ancient India*, No. 3, 1947; M.S. Vats, *Excavations at Harappā* (Delhi, 1940), T. LXI, 21.
101. G. Stacul, 'Painted Pottery from the Swāt Valley, Pakistan (1700-1400 B.C.)', *SAA*, 1979, (Berlin, 1981).
102. M.S. Vats, *op. cit.*, T. XI, 82, 86.
103. J.-M. Casal, *La civilisation de l'Indus et ses énigmes* (Paris, 1969), figs. 77 and 78.

104. J. Marshall, *op. cit.*, T. CXLVI, 40; G. Stacul, *Prehistoric and Protohistoric Swāt*, . . ., 1987, p. 75.
105. R. Allchin, 'How Old Is the City of Taxila?', *Antiquity*, 56, 1982, p. 136.
106. J.-M. Casal, *Fouilles d'Amri*, Vol. 2 (Paris, 1964), fig. 64.
107. O.P. Agrawal, *The Archaeology of India*, 1982, fig. 85.
108. A.H. Dani, 'Excavation at the Gomal Valley', *AP*, V, 1970-1971, Pl. 28.
109. G. Stacul, 'Notes on the Discovery of a Necropolis . . .', 1966; G. Stacul, *Prehistoric and Protohistoric Swāt*, . . ., 1987, p. 64.
110. Gold ear-rings were found at Kherai. The output of gold in Kohistan and Kashmir has been known since ancient times (G. Stacul, 1987, p. 76).
111. The nearest nephrite reserves are in the Kunlun in Sinkiang (G. Stacul, 1987, p. 75).
112. The azure beads were revealed at the sites of Swat. Azure (lapis lazuli) was extracted in Afghan Badakhshan (G. Stacul, 1987, p. 75).
113. G. Stacul, 'The Gray Pottery in the Swāt Valley and the Indo-Iranian Connections (ca. 1500-300 B.C.)', *EW*, 20, 1970, p. 97.
114. This problem is not included in this article. On this subject in detail see N.M. Vinogradova, 'The Origin of the Swāt Burial Grounds (Northwest Pakistan). Indo-Aryan Aspect of the Swāt Culture . . .', 1990, p. 40.

13

The easternmost Graeco-Persian seals

Pierfrancesco Callieri

The Graeco-Persian seals of the collections formed in Afghanistan and in the Indian subcontinent, particularly in the north-western region, show several interpretative problems still open, which offer a scope for their reconsideration in the light of recent researches in the early historic Indian glyptics and numismatics.

These seals, in fact, for their technical and stylistic characteristics undeniably belong to the Graeco-Persian environment of Achaemenid age; a number of particular aspects, however, point to the fact that some of them may have been produced in the post-Achaemenid north-west.

The scholars who until now devoted their attention to Graeco-Persian gems from India, even if proposing a local origin, have not dwelt upon their iconography. According to John Marshall[1] they are undoubtedly Persian in character, notwithstanding the strong Hellenistic influence noticeable in some of them, and were imported from Persia or locally engraved imitating Persian or Graeco-Persian prototypes. A.D.H. Bivar,[2] who has created the term "Indo-Ionian style", considers them a north-western production, begun in the late-Achaemenid age, developed under Alexander and pursued in the 3rd and 2nd centuries B.C. and perhaps even in the Śaka age (with seals engraved in the same style showing Śaka personages).

The leading authority on Graeco-Persian seals, J. Boardman, with his singling out the various stylistic groups, gives us fundamental references for the attribution of our objects. What Bivar calls "Indo-Ionian" is for Boardman the "a globolo" style,[3] spread in the Achaemenid and post-Achaemenid period from Phoenicia to India, where it may have long persisted.[4] Boardman examines also three seals recovered from the Bhir Mound, Taxila, in 1944, one of which would seem unfinished,[5] and remarks that it is not impossible that they were engraved at Taxila; the three seals, however, along with other seals from Taxila or the north-west belonging to the same "Taxila Group",[6] are characterized by the continuity with the western tradition typical of the Achaemenid period.

According to Boardman, on the contrary, some elements which may point to the easterly borders of the Achaemenid empire between the 4th and the 3rd century B.C. can be detected in the "Bern Group", in which the most typical device is the seated female goddess.[7] Boardman, however, is rather cautious on this aspect: 'the exceptional find of

Graeco-Persian stones at Taxila in the Punjab and the possible location of some late groups (the Bern Group and *a globolo*) are slight indications of the extension of the Graeco-Persian style to the most easterly borders of the Persian Empire, but it could have been Greek arms that carried it there.'[8]

A careful iconographic and stylistic analysis, carried out on the Graeco-Persian seals of the largely unpublished collections housed in the British Museum, Department of Oriental Antiquities, in the Victoria and Albert Museum, and the Peshawar Museum, has made it possible in singling out four new groups of seals, true "classes" characterized by detailed technical and stylistic affinities which, even in the case of different devices, allow the reference to a production unit which may possibly represent the workshop.

The largest class, belonging to the wider group of the "a globolo" seals, is represented by five seals with animal device (lion, horse, humped bull, winged horse) characterized by the same rendering of the body through two major globular elements joined by a thinner central element, blended without sharp edges; the rendering of the legs as well, through rather wide engraved segments joined by circular elements used also for the tips, is common to all these seals. Details are carefully indicated and finishing is accurate. The images, all different for subject and posture, are rather plastic and rich in motion; compared to other Graeco-Persian seals, we notice a good technical level.

Three other classes, of lesser numerical relevance, are related to the "Bern Group" seals. The first one is formed by two gemstones in which the nearly identical execution of a lion device betrays the common origin. The second one is represented by two gemstones in which the common rendering of the human figure suggests their being produced in the same workshop. In the third one we may include three gemstones bearing the already-mentioned female deity of the "Bern group", which besides showing the same device are associated by the same rendering of the upper and lower halves of the body as two opposed globular masses.

All the gemstones of these "Graeco-Persian" classes are different varieties of chalcedony, and almost all of them are pierced scaraboids.

As regards chronology, the fact that seals of the same groups were found in the late-Achaemenid and Mauryan strata in the Bhir Mound while absent in the 5th-century stratum[9] seems to point to a dating between the late-Achaemenid and the late-Mauryan period, confirming Boardman's datings.

The main interest of our material, however, does not consist in the stylistic classes in themselves, as much as in some iconographic peculiarities which characterize them as well as other isolated seals of related style. The majority of the Graeco-Persian seals from the north-west, in fact, bear devices which are not met in the more westerly materials.

A carnelian scaraboid (Pl. 13.1) in the British Museum from the Masson collection (formed in Afghanistan) shows a lion in profile to right coming out, with open jaws, from a stylized hillock rendered through a pyramidal formation of spherical elements of rocks. A tall tree composed of wide branches with leaves and fruits, branching off the vertical trunk, springs from the same rocks, in the centre, while to the right is a vine branch (?) with a bunch (?).

The opaque light-brown chalcedony scaraboid (Pl. 13.2) in the British Museum, collected from the Akra Mound, Bannu, N.W.F.P., by Lt. Col. Gosset, shows a lion walking in profile to right, with a symbol in the shape of a globe surmounted by two horns (called taurine in the English literature) in front of the hock.

A carnelian scaraboid (Pl. 13.3) in the Peshawar Museum, belonging to John Marshall's collection, shows a lion walking in profile to right, with a horizontal taurine symbol above.

A chalcedony scaraboid in Cambridge, from the north-west, included by Boardman in the Taxila Group,[10] shows a lion walking in profile to right with a horizonal taurine symbol above and a *svastika* in front of the hock.

A carnelian scaraboid (Pl. 13.4) in the British Museum, from the collection of Alexander Cunningham, shows a sitting lion in profile to left, with a taurine symbol above.

A light-brown chalcedony scaraboid (Pl. 13.5 a & b) in the British Museum, of unknown provenance but probably collected in India since it is housed in the Department of Oriental Antiquities instead of the Western Asiatic ones, shows a lion walking in profile to left, with a taurine symbol in front of the hock and a left-hand *svastika* above.

A Graeco-Persian scaraboid from Stratum II of the Bhir Mound[11] shows a lion in profile to left with a horizontal taurine symbol above right.

A yellow chalcedony scaraboid (Pl. 13.6) in the British Museum, shows a rampant horse in profile to left with a taurine symbol above right; a similar device is found also on a scaraboid of unknown provenance in a private collection, which Boardman includes in the easterly Bern Group and dates to the late 4th-early 3rd century B.C.[12]

A haematite (?) scaraboid (Pl. 13.7) in the British Museum shows a humped bull sitting three-quarters to left with a horizontal taurine symbol above.

A sealing from Stratum II of the Bhir Mound[13] bears two impressions of the same seal showing a humped bull standing to left and *nandipāda* symbol above the hump.

Particularly interesting is a modern impression in Oxford, of a seal of unknown provenance[14] showing a female (?) personage sitting in front of a humped bull in profile to right with *svastika* above and a taurine symbol in front of the hock; the impression is partially flattened, but what could be a Kharoshṭhī inscription can be seen along its upper edge; the stylistic characters are, according to Boardman, those of the "Bern Group", even though the bull's legs show a peculiar globular rendering.

Finally we find a horizontal taurine symbol also on a chalcedony scaraboid in Oxford, of unknown provenance but belonging according to Boardman to the easterly "a globolo" group[15] and showing a lion tearing a lamb.

Another iconographic motif which we think must be put forward even in the absence of the taurine symbol, though it is not unknown in seals from the western regions of the Achaemenid empire, is that of the humped bull.

The burnt, light-brown chalcedony scaraboid (Pl. 13.8) in the British Museum, from the Gordon collection, shows a humped bull running in profile to left.

A carnelian scaraboid (Pl. 13.9) in the Peshawar Museum, from the Marshall collection, shows a humped bull sitting in profile to left, with head in three-quarters view.

A honey-colour chalcedony scaraboid (Pl. 13.10) in the British Museum shows a humped bull (?) sitting or at crouching gallop, in profile to left.

The grey chalcedony scaraboid (Pl. 13.11) in the Victoria & Albert Museum, from the Haughton collection and therefore probably collected in the north-west, shows a humped bull in profile to right with bent head, above a horizontal line marking the soil.

The wide diffusion of these seals in the regions which for about two centuries represented the easternmost satrapy of the Achaemenid empire is a relevant evidence, which, however, in itself does not say anything on their origin. Also the already-mentioned find at the Bhir Mound of a Graeco-Persian gemstone showing a slightly incomplete finishing, that has been interpreted as evidence of its being unfinished and therefore as a proof that in Achaemenid Taxila Greek artisans were active,[16] must be confronted with the founded objection that this seal missed only the final stage of finishing, as it can be seen also on other seals of this group; therefore it cannot be excluded that the seal may have been imported. Perhaps more indicative of a local workshop may be considered the presence, along with the three seals, of a gemstone not yet engraved.

The hypothesis of a Graeco-Persian production in the north-west, suggested by Marshall[17] and particularly by Bivar[18] and partially shared by Boardman[19] is confirmed, in my opinion, by the interpretation of the iconographic motifs which we have mentioned before and which are present only on seals of stylistic groups prevalent among objects of ascertained Indian or Afghan provenance.

The rendering of the hillock through a pyramidal formation of spherical elements met with on the seal at Pl. 13.1 recalls one of the symbols frequent on the punch-marked and on the earliest cast coins of India, the hill rendered through three rows of arches progressively decreasing in number.[20] The characteristic stylization of the tree as well is similar to that on the punch-marked coins.[21] A tree image extremely similar to that on our seal appears on a type of the tribal coins of the Audumbara chief Dharaghosha (2nd-1st cent. B.C.).[22]

Many of the other seals of our "Indian" collections or of the "easterly" Graeco-Persian stylistic groups, even if with more traditional animal devices, bear two symbols which are on the contrary absent on seals from the western and central regions of the Achaemenid empire as well as from the other stylistic groups, i.e. the *svastika* and, more frequently, the taurine symbol.

The *svastika* is one of the symbols with a wider geographical and chronological diffusion: in India, however, where it is present already in the Harappan period, it becomes one of the most popular *maṅgalas* or *lakshaṇas*, connected with snakes and *nāgas*, but also with a marked solar character.[23]

Also the taurine symbol enjoys a particular popularity in India, at least in the early historic period. Its origin is uncertain: Bivar's suggestive hypothesis, linking it to Bucephalus, Alexander's horse,[24] would bring the appearance of this symbol back to the end of the 4th century, and would explain its presence on a class of seals which are issued by the Greek culture of Achaemenid age, as well as its successive diffusion in India. A similar symbol is present on Achaemenid punch-marked silver *shekels* dated to the 4th cent. B.C.:[25] however, its alleged Indian origin has been rejected,[26] and the Graeco-Iranian origin of the punch-marked coinage in India[27] would eventually suggest the opposite, i.e. the Achaemenid origin of the mark. This seems to be confirmed by the fact that the taurine symbol is present also on an Achaemenid gold signet-ring from the Oxus Treasure bearing a "winged bull having a bearded human head with crown" and an Aramaic inscription;[28] the seal is dated to the 5th cent. B.C., the inscription to the 4th, even though some doubts, seemingly unnecessary, have been raised as regards its authenticity. The taurine symbol, however, does not bear a primary importance in the Achaemenid world; on the contrary, its wide diffusion in the early historic India and its similarity to the later symbol called in the Brāhmaṇical, Buddhist or Jaina environments respectively *nandipāda*, *triratna* or *nandyāvarta*[29] suggest that, even if of foreign origin, in ancient India it found a fertile humus for its assimilation by the local religious world as an auspicious symbol.

The taurine symbol, as a matter of fact, is recorded in many of the earliest Indian iconographic evidences of different nature, from Aśoka's rock edicts at Jaugada[30] and the Mauryan ring-stones to the early historic pottery;[31] from the punch-marked and cast coins to seals.[32]

The similarity of the symbol to the Aśokan Brāhmī letter *ma* is remarkable to such an extent that when Alexander Cunningham published the Jaugada inscriptions he interpreted the three taurines incised between the texts of the two edicts, associated with right-hand and left-hand *svastikas*, as the letter *ma* which, read 'in combination with the upright of the surrounding frame which passes through it . . . ' gives the 'mystic word *Aum*.'[33] However, it is just the presence of the three *svastikas* which suggests that we have here three taurines instead of three Brāhmī letters *ma*.

In fact, the combination of the taurine symbol and *svastika*, as well as the presence of the taurine symbol and *svastika* beside humped bull devices, seem to bear a particular significance. Besides the already-mentioned Graeco-Persian gemstone in the British Museum, the combination of humped bull, taurine and *svastika* appears on two seals which show stylistic characters common to the Indian glyptics of the early historic period (3rd-1st centuries B.C.). The first one is a green chalcedony stamp-seal (Pl. 13.12 a & b) in the Peshawar Museum, from the north-west, showing a humped bull in profile to right with horns in front view, with left-hand *svastika* above, taurine symbol to the left and Kharoshṭhī inscription in characters of around the 2nd cent. B.C. The second one is a steatite(?) rectangular stamp-seal (Pl. 13.13 a & b), also in the Peshawar Museum, showing a humped bull in profile to right, with above a left-hand *svastika* on the left and a taurine symbol in the middle. Near the latter, even if more accurate in working, is another steatite rectangular stamp-seal in the Cabinet des Médailles, Paris, with Kharoshṭhī inscription dated by Fussman to the 2nd cent. B.C.[34] showing a humped bull in profile to right with *svastika* below.

At Taxila, the taurine symbol and *svastika* appear, along with an arrow device, on a square tablet of bone (draughtsman or counter) from Stratum III of the Bhir Mound,[35] while an ivory seal from Kauśāmbī bears the taurine and *svastika*.[36] Right-handed and left-handed *svastikas*, as we said, appear associated with the taurine symbols also on the already-mentioned rock-edicts at Jaugada.

In coinage, *svastika*, taurine and humped bull are among the most ancient symbols appearing on the punch-marked coins, a class which according to Cribb began with the local issues of Gandhāra in the early 4th cent. B.C.[37] The taurine symbol is extremely common both on the local and national series, usually in association with other symbols.[38] The humped bull also is quite frequent on local and national punch-marked silver coins.[39] Particularly interesting is a symbol in which the humped bull is associated with a taurine.[40]

The most indicative comparisons, however, are to be found among the uninscribed cast coins and the local Taxilan copper coinage. Among the obverse types of the uninscribed cast coins we find the taurine and *svastika* associated with an elephant.[41] At Taxila we have a couchant bull with (one or two) taurine above and sometimes *svastika* below;[42] a lion to left with a taurine symbol and *svastika*, one in front, the other above.[43] These coins at the Bhir Mound are concentrated mainly in Stratum II (dated both by Marshall 1951 and Erdosy 1990 to the 3rd cent. B.C., i.e. the Maurya period); however, they are even more frequent in Strata II-III at Sirkap (Late Śaka and Parthian for Marshall 1951; from Azes II to Kaṇishka for Erdosy 1990). Their beginning is placed both by Marshall and Allan in the late 3rd cent. B.C.: but while for Allan their striking ends up with the Greek conquest (middle 2nd cent. B.C.) and their presence in later layers is due only to the continuation of their circulation,[44] for Marshall 'it seems more likely that these coins continued to be struck for some time after the Greek, and possibly after the Śaka conquest also.'[45]

The humped bull is then widely present on the tribal coins all over northern India, from the Audumbara (2nd-1st cent. B.C.)[46] area to Ayodhya (2nd cent. B.C.-2nd cent. A.D.)[47] and Kauśāmbī (3rd cent. B.C.-1st cent. A.D.).[48]

When the Indo-Greek kings began striking coins on the Indian weight standard, they adopted the types of elephant and humped bull.[49] Particularly the humped bull is always on the reverse, where the legend is in Prākṛit.[50]

According to Boardman[51] the humped bull is the sole device on Graeco-Persian seals in the "a globolo" style which may be connected with the Iranian world. The bull in Iranian religion has an important role and may represent the Primeval Ox as well as the lunar deity Māh.[52] However, its diffusion in the Achaemenid imagery, excluding the seals of our groups, is prevailingly concentrated in the lion-bull fight scene, and particularly in the common bull form without the hump. It is only with the Sasanian period that we often meet humped bulls on seals;[53] of particular relevance to our hypothesis that the humped bull plus the taurine symbol is specifically Indian is the fact that on some of the Sasanian seals the humped bull is associated with symbols which are not taurine or *svastika* but crescent,[54] or star and crescent.[55]

The humped bull is deeply rooted in India as well, where it represents the mount of Śiva and at the same time theriomorphic form of Śiva.[56] If we bear in mind its wide diffusion on the earliest Indian coins and seals we mentioned before, as well as the fact that Śiva in his animal form of (humped) bull was known to the Greeks as the god of Gandhāra,[57] the possibility that the seals bearing the humped bull device may have been engraved in these regions of the subcontinent looks likely. Particularly important is the remark that among all the Graeco-Persian seals bearing the bull devices which we could trace, the humped bull (*bos indicus*) is recorded prevailingly on the stylistic groups for which we propose a north-western origin; on the other stylistic groups, the bull is always the common bull, with only two exceptions in what Boardman calls "Greek Style".[58]

None of the comparative materials which we put forward is probably earlier than the Graeco-Persian gemstones bearing such devices and which stylistically may be dated around the 4th and 3rd cent. B.C.; the earliest punch-marked coins, in fact, are variously dated, but do not seem to go earlier than the beginning of the 4th cent. B.C.[59] However, having emphasized the place of the taurine, *svastika* and humped bull in the Indian figural culture in the 3rd and 2nd cent. B.C., as well as their rare presence in the rest of the Achaemenid territories, we propose to see in the Graeco-Persian seals bearing these devices one of the earliest local production of ancient Gandhāra, whose birth in a way parallels the genesis of Indian punch-marked coins proposed by Cribb.[60] The historical implications of this interpretation are considerable, particularly as regards the real nature of the Achaemenid presence in the north-western India.[61]

Notes and references

1. Marshall 1951, p. 674.
2. Bivar 1961, pp. 313-15.
3. Cf. the term *Rundperl* in Nikoulina 1971, p. 91.
4. Boardman 1970, pp. 322 and 325.
5. Young 1946, p. 33.
6. Boardman 1970, pp. 318 ff., Pls. 947-50, Figs. 303-5, fns. 277-83.
7. *Ibid.*, pp. 320 and 325-26, Pls. 966 and 990-91; Boardman 1975, nos. 102 and 108; Boardman 1976, p. 53, nos. 14-16.
8. Boardman 1970, p. 325.
9. Marshall 1951, pp. 677-79.
10. Boardman 1970, p. 355, Pl. 949.
11. Marshall 1951, p. 677, no. 9, Pl. 207, 2.
12. Boardman 1975, p. 99, no. 102.
13. Marshall 1951, p. 682, no. 41, Pl. 207, 26.
14. Boardman 1970, p. 356, Pl. 969.
15. *Ibid.*, p. 356, Pl. 984.
16. Young 1946, p. 33; Bivar 1955, p. 55.
17. Marshall 1951.
18. Bivar 1961.
19. Boardman 1970.
20. Allan 1936, pp. xxiv ff., particularly form no. 5, Pl. X. 16.
21. *Ibid.*, pp. xxx-xxxii, particularly form no. 4.
22. Whitehead 1914, p. 167, Pl. XVI, no. 136; Allan 1936, p. 123, Pl. XIV. 14.
23. Cf. Liebert 1976, pp. 290-91, *s.v.*
24. Bivar 1961, pp. 313-14.
25. Hills 1922, p. cxxxvii, nos. 40-41.
26. *Ibid.*, p. cxxxix.
27. Cribb 1985, p. 550.
28. Dalton 1926, p. 28, no. 105, Pl. XVI, fig. 57.
29. Cf. Srivastava 1991, cf. also Liebert 1976, p. 191, *s.v. nandipada.*
30. Cunningham 1961, p. 20, Pl. XIII.
31. Ghosh & Panigrahi 1946, p. 45, Fig. 7.2; Filigenzi 1985, p. 436, Fig. 17.
32. *Infra*; cf. also Thaplyal 1972, p. 334.
33. Cunningham 1961, p. 20.
34. Fussman 1972, p. 26, no. 3.
35. Marshall 1951, p. 662, no. 91, Pl. 203, u.
36. *JNSI*, XXIX.
37. Cribb 1985, p. 550.
38. Allan 1936, p. xxxiii.
39. *Ibid.*, pp. xxv-xxvii.
40. *Ibid.*, pp. 17-21, Pl. III.3, *Class 2, group I.*
41. Allan 1936, p. 88, Pl. XI.8.
42. *Ibid.*, p. 235, Pl. XXXV, 13a, b; p. 236, Pl. XXXV, 11; Marshall 1951, pp. 760-61, no. 18; *ibid.*, "rare and unique coins", nos. 32-36; Allan 1951, p. 856.
43. Allan 1936, p. 225, Pl. XXXIII, 8; Marshall 1951, pp. 760-61, no. 21; *ibid.*, "rare and unique coins", no. 38; Allan 1951, p. 856.

44. Allan 1936, p. cxxxix.
45. Marshall 1951, p. 757.
46. Allan 1936, p. 123, Pl. XIV, 17.
47. *Ibid.*, pp. 135-39, Pl. XVII, 1, 2, 10, 11, 17, 18, 21 and 22.
48. *Ibid.*, pp. 148 and 150-58, Pl. XX, 2, 5, 12 and 14.
49. Whitehead 1914, p. 6.
50. *Ibid.*, p. 29, Pl. III, no. 149, Heliokles; p. 37, Pl. IV, no. 220, Diomedes; p. 40, Pl. IV, no. 231, Apollodotos; p. 64, Pl. VI, no. 517, Epander; p. 69, Pl. VII, no. 555, Artemidoros; p. 71, Pl. VII, no. 590, Philoxenos.
51. Boardman 1970, p. 322.
52. Cf. Ackerman 1938, p. 796; Schwartz 1985, pp. 645 and 657.
53. Cf. e.g. Bivar 1969, pp. 83-87, Pls. 15-16; Gignoux & Gyselen 1987, pp. 176-79, nos. 30.34-30.47.
54. Bivar 1969, EM 11; Gignoux & Gyselen 1987, no. 30.40.
55. Bivar 1969, EM 2, EM 18 and EN 16; Gignoux & Gyselen 1987, nos. 30.38, 30.39 and 30.43.
56. Cf. Banerjea 1956, pp. 112 and 534-36.
57. Cf. Hesychius, ed. Schmidt, p. 415: Γάνδαρος· ‘ο ταυροκράτης, παρ’ ’Ινδοῖς; ed. Latte, p. 362: Γάνδαρος· ‘ο ταυροκέρατος, παρ’ ’Ινδοῖς.
58. Boardman 1970, p. 352, Pl. 871; p. 312, fig. 287.
59. Cribb 1985, p. 550.
60. *Ibid.*
61. Cf. Vogelsang 1987, p. 187; Vogelsang 1990, pp. 107-8.

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14

Through the fault of the engraver (*lipikar-āparādhena*): a note on the preparation of epigraphical documents in early India and the evidence of a Mathura Brāhmī inscription of year 5

B.D. Chattopadhyaya

I

The earliest historical inscriptions of India, it is known to all students of Indian epigraphy, date to the period of Aśoka, the Maurya ruler of the third century B.C. His inscriptions give us the name of at least one engraver, Chapaḍa. Chapaḍa engraved his name on the Brahmagiri Rock Inscription,[1] and it is likely that his name occurs in 'the mutilated portions of two other rock inscriptions'[2] in Karnataka. Chapaḍa, while engraving Brāhmī records in the Deccan, could not resist showing off that he was adept in the writing of Kharoshṭī[3] as well; it was in the Kharoshṭī script[4] that Chapaḍa engraved his own name in the Deccan which even in later periods remained outside the Kharoshṭī zone. What is, however, not known is whether he, apparently hailing from the north-western part of the subcontinent, could engrave two other scripts, Aramaic and Greek, which also were employed by Aśoka for the preparation of edicts in select localities of his empire.

Engraving of inscriptions was an artisanal activity, the lapses in which, seen from the perspective of the literate elite, are pointed out by Aśoka himself. Aśoka seems to have considered his 14 Major Rock Edicts as his *dhaṁmalipi per se*, and his Major Rock Edict 14[5] makes an interesting statement regarding the various types of documents he wanted to be engraved. Among the Edicts, some were brief (*saṁkhita*), some were of medium length (*majhama*) and some were elaborate (*vistata*). Aśoka goes on to add, in the same Edict, that multiple copies of some were prepared because of the quality of their contents. The same Edict also uses the expression *lipikar-āparādha*, presumably not in its literal sense but to point to the fact that sometimes the Edicts prepared were not satisfactory because of the errors committed by the engraver or that sometimes an edict may even have been left incomplete (*asamātaṁ*) by the engraver.

Instances to show that mistakes or lapses were indeed committed by engravers are many. Indian epigraphs abound in examples of errors not only of orthography but of other types as well. Sometimes, crucial letters are found to be missing from expressions which would not be intelligible without the judicious intervention, and restoration of the intended expression, by the epigraphist. At the same time, as a record like the Girnar version of Aśoka's Major Rock Edict IV shows, such oversight could be corrected by the engraver himself by inserting the relevant letter at the appropriate place at a stage after the initial engraving had been done,[6] or after the error had been pointed out by an official who may have been in charge of checking the records after they had been prepared. Another relevant example, randomly selected from the bulky corpus of Aśokan Edicts, would be the uncorrected *dbā* in *dbādasa* for *dvādasa*, occurring in Major Rock Edicts III and IV (Girnar version).[7] The error need not be attributed simply to Prakritism; Sanskrit inscriptions too abound in errors, all of which it would be wrong to attribute to the engravers alone. To continue with examples from Aśokan records, the distinction between records where engraving was done with care and those where the engraver was clearly not under official supervision is sharply obvious. Indeed, although separation of letter-clusters for distinguishing between words was not a feature of Indian epigraphical records in general, the Rummindei and Nigali Sagar records of Aśoka[8] do display a conscious effort at allocating space between words; as exceptions, they underline somewhat boldly the general practice of engraving letters in an uninterrupted flow.

In the preparation of epigraphic records, the sources of 'faults'—and of variations—could then be many; the present note is, however, not intended to be a detailed discussion of them.[9] Its concern is first to bring together some relevant evidence bearing upon the stages of the preparation of epigraphic documents. An examination of evidence of this nature is intended to be a prelude to the publication, in the next section of this note, of a Kushāṇa period Brāhmī inscription from Mathura. The epigraph in question contains some peculiar 'errors', and our reading of the record seems to suggest that these errors can provide additional evidence on the process of the preparation of epigraphic documents in stone in the early historical period.

Some idea of how epigraphic records were prepared is available in texts, and one can in this context cite the oft-quoted evidence of the *Yājñavalkya-smṛiti*: 'If the king makes a grant of land or causes a (similar) assignment (*nibandha*) to be made, he should, for the information of the virtuous kings of the future, get a document (*lekhya*) prepared. He should get a durable charter (*śāsanaṁ* ... *sthiraṁ*) written on a piece of cloth (*paṭa*) or a copper-plate (*tāmra-paṭṭa*) which should be marked by his own seal on it (*svamudroparichihnitaṁ*). The charter should contain a description of the king himself and of his lineage (*ātmano vaṁśyānātmānāṁ cha*), a statement of the extent of the grant or the measure of the gift land and also his signature (*svahasta*) and the date (of the record).'[10] D.C. Sircar has further cited Vyāsa who specified that a charter 'should be written first by chalk on a slab or on the ground and, after the elimination of all errors, should be finally written on a leaf (or, metal tablet).'[11] Although the procedures for getting a charter engraved, as given by Yājñavalkya and Vyāsa, relate more to official inscriptions recording grants than to epigraphic records in general, some technical procedures were common to all types of records. Preparing a *lekhya* involved literacy of whatever level, and expertise in *lekha* was accorded high premium in society. Even outside the elite groups, which included not only brāhmaṇas but rulers as well,[12] and who were expected to be literate, *lekha-sippa* or the craft of writing appears to have held the highest position.[13]

Chitrarekha Gupta has brought together early historical inscriptional evidence, mostly from the Deccan, to show that the profession of a *lekhaka* had become fairly widespread in early historical society and that acts of donation by *lekhakas* to Buddhist institutions in the Deccan and in central India were not inconsiderable. She cites the evidence of a Sanchi inscription recording a gift by a *rājalipikara* and by implication seems to include the *lipikaras* in the same category as the *lekhakas.*[14] However, in terms of the actual functions carried out by them, the separation between the *lekhakas* and the *lipikaras* appears to have taken place fairly early, and this separation has to be understood by referring to the technical nature of the *lipikara*'s work.

To return then to the procedures for getting an epigraphic record prepared, the records themselves distinguished between the composition of the text of a record and its engraving. The term used, when engraving was done, is *utkīrṇa* or *utkīlita*, and the technical work of engraving an inscription could be done, depending on the material used, by a *lipikara*, *śilpin* or *sūtradhāra* or by different types of metalsmiths like *pitalakāra*, *lohakāra* or *ayaskāra*, *hemakāra* or *sūnāra* or *akshaśālin.*[15] In other words, the work of getting a record engraved involved the technical skill of a stonemason or a metalsmith and literacy which related to the skill of drafting the text of a record was not necessarily required in reproducing the text on stone or on a metal plate.

Early historical inscriptions, particularly from the western Deccan, support what Yājñavalkya and Vyāsa have to say on the preparation of epigraphic records, and the evidence of a few records from Nasik alone may be cited to elucidate the point being made. The first case that may be cited is that of a set of Nasik cave inscriptions of Kshatrapa Nahapāna. Engraved on the right wall of the veranda before the entrance to Cave 10,[16] one record is an obvious reproduction of three records originally prepared in years 41, 42 and 45. With reference to one of the records, the expression used is: *eta cha sarvaṁ srāvita nigama-sabhāya nibadha cha phalakavāre charitrato ti*; the record also ends with the expression *phalakavāre charitrato ti. Phalakavāra* was the board on which the record was written for initial presentation and preservation at the *nigama-sabhā* which was concerned with the administrative execution of the donations mentioned in the records. Another inscription, engraved above the entrance-door to Cave 10 at Nasik and recording the exploits of Nahapāna's son-in-law Ushavadāta,[17] is also a combination of three records, prepared at disparate points of time and later reproduced by copying on the stone surface by engravers technically equipped for the work. Gautamīputra Sātakarṇi's Nasik record of year 18,[18] engraved on the east wall of the veranda of Cave 3, specifies different stages in the preparation of a landgrant record before it was finally engraved. The privileges bestowed on the recipients of a cultivated plot had to be recorded in the form of a charter (*kheta-parihāre cha etha nibadhāpehi*). It was first verbally communicated (*aviyena āṇataṁ*); then it was written (*chhato*) by *amātya* Śivagupta and examined by the sovereign ruler, i.e. Gautamīputra (*mahāsāmiyehi uparakhito*). The *paṭikā* or the charter was given (*datā*) in year 18, and, curiously, the inscription ends with the expression: *Tāpasena kaṭā*, i.e. (done by Tāpasa). Although the inscription does not say so clearly, the distinction between *chhato* which was done by the official Śivagupta and the act of doing (*kaṭā*) or engraving which was done by Tāpasa suggests a significant distance between the two acts. What Tāpasa appears to have done was to reproduce a copy of the *paṭikā* (charter) which had already been given.

Two technicalities which the records do not mention but which can be made out by examining the cave epigraphs *in situ* related to: (i) the demarcation of space on which the record was to be engraved, and (ii) the related problem of preparing the rock surface before the engraving of the letters was done. That space-alignment was a severe technical problem which the engravers could create for themselves when several previous records were combined for reproduction on the cave wall can be seen particularly in Caves 3 and 10 at Nasik. Ushavadāta's record in Cave 10, which is really a combination of three records, starts off, just below the veranda ceiling and from one end of the wall to the other, in big, beautifully executed letters, but it appears that the space-alignment for the record was faultily planned. The space above the lintel of the entrance-door to the cave could not, therefore, accommodate the entire text of the record which had to spill down, on the left side of the door, to the level far below the lintel, and the sizes of the letters had to be considerably reduced.[19] This is in sharp contrast to the technical perfection with which the short inscription of Nahapāna's daughter Dakshamitrā, recording the gift of a cell, was engraved on the space above the lintel of the cell-door at the right end of the veranda. Not only was the rock surface transformed into a plain, smooth surface, the engraving of the letters also exhibits a consistency in conformity with the preparation of the surface.

That the preparation of the rock surface for the engraving of letters was a difficult operation and sometimes necessitated the use of paint both to facilitate the engraving of letters and to make them prominent and legible after engraving is indicated by a close study of a number of early historical epigraphs from the former Rewa State in Madhya Pradesh.[20] The text of an inscription, the Ginja Hill inscription reported by A. Cunningham,[21] was written out in red paint before engraving, and although the record did not in fact ever get engraved, it nevertheless suggests a stage which sometimes preceded the actual engraving of a rock inscription. Commenting on the general characteristics of a series of early historical cave inscriptions from Bandhogarh, also in the former Rewa State, N.P. Chakravarti states: 'It appears that the method of writing employed in these caves was first to engrave the record on the wall and then paint the letters with a kind of red pigment with a view to bringing out the letters clearly. The paint is still intact in a few of the inscriptions. The necessity of painting the letters is emphasized by the fact that the walls of the caves had not been always properly smoothened before the engraving was done. The surface is so rough in some of the caves that it is difficult to read the inscriptions from the rock itself. Probably the inscriptions were first written on the rocks with a similar paint also before engraving.'[22]

The drift of the evidence we have presented so far seems to underline the fact that the engraving of a record was a specialized artisanal activity, and different types of material presented different technical problems which could often be sorted out by the scribe and the engraver together. Sometimes, engraving was facilitated by the scribe writing out the text of the record in paint or in ink, and in addition to the early historical evidence from Madhya Pradesh cited above, we may mention the case of the Kasia copper-plate inscription. All the thirteen lines of the text of the copper-plate record, discovered at Kasia, District Gorakhpur, were written out in black ink, but for reasons unknown, engraving was done only of the first line and, technically, the record remained incompletely executed.[23]

The essential differences between the functions of the scribe and those of the engraver may suggest that the engraver, irrespective of whether he was a mason or a metal-smith, did not have to be literate to be able to engrave records. Indeed, it is plausible that in most cases, he was not. At the same time, however, it would be totally incorrect to group all engravers of records as constituting a homogenous category and characterize the category as "non-literate". In the context of early medieval India, segments of all artisanal groups experienced remarkable degrees of social mobility, and select evidence bearing upon the category of *sūtradhāras* may be presented as relevant to the present discussion. We first cite the evidence of an inscription of Durgagaṇa from Jhalrapatan in Rajasthan.[24] The record, apparently using late Gupta characters, was engraved (*utkīrṇṇā*) by Achyuta's son *sūtradhāra* Vāmana. Two points about the record are worth noting. One, the *praśasti* was composed (*rachita*) by Bhaṭṭa Śarvvagupta, and although *sūtradhāra* Vāmana only engraved it, the record gives him the appellation *pūrvvavijñānaśālin*. G. Bühler takes it, along with another expression *dhīmatā*, to mean that Vāmana was a 'clever mason who was able to understand the original (text)'. *Sūtradhāra* Vāmana was thus a literate engraver who, like Chapaḍa of Aśoka's record, also wanted to show off that he was gifted in his own craft too. Here are Bühler's comments which suggest this: 'The most interesting point about the inscription is the character of the letters. On the whole they show the Gupta type. But the mason has mostly taken out the *kāṇas*, i.e. the vertical strokes for the long *ā*, and placed them above the letters after which they are to be read, converting each, in compliment to Śiva, into a diminutive trident. The medial *i* is also highly ornamented.'[25] If the *sūtradhāra* Vāmana was an example of an artisan who not only excelled in his own craft but also received special commendation for being literate in an inscription written by someone else, Śūlapāṇi, the "crest-jewel" of a community of artisans of Varendra (*Vārendrakaśilpīgoshṭhīchūḍāmaṇiḥ*), responsible for engraving the Deopara *praśasti* of the Sena king Vijayasena of Bengal composed by poet Umāpatidhara, could be even given the rank of a *rāṇaka*[26] which is normally found associated with the ruling elites of the period.[27] It is clear that *rāṇaka* Śūlapāṇi, as a professional *śilpin*, acquired his exalted status by being the chief of his professional community and by his proximity to the ruler of the region; his case is thus a clear pointer to the existence of a range of positions within the same community. In fact, patronage could turn the position of the *sūtradhāra* as engraver of records into a status, and this is precisely what seems to be suggested by a thirteenth century record of the Chaulukya period from Girnar hill, Kathiawar, Gujarat. Found engraved on a slab in a wall of the Neminātha temple on the Girnar hill, the record is dated A.D. 1273 in the period of Arjunadeva.[28] What is interesting about the contents of the record is that it grants 'the right of engraving inscriptions in all the temples including that of Neminātha on the sacred hill Ujjayanta (i.e. Girnar) to an engraver named Haripāla, son of Goga belonging to the Mevāḍā community'; the grant was given by 'the (Jain) Āchāryas, Udayaprabhasūri and others and by the *Pañchakula* headed by Mehetā Dhāndhā. The right was given not only to Haripāla but it was to be enjoyed by his lineal descendants, as is stated in the usual copper-plate grants.'[29] The relevant portions of the record run as: *Śrī-ujjayaṁta-mahātīrthe Śrī-Neminātha-prāsāḍādi-dharmmasthāneshu sūtradhāratvaṁ sa-prasādaṁ pradattaṁ. Idaṁ sūtradhāratvaṁ su*[30]*-Haripālena putra-pautraparaṁparayā āchaṁdrārkaṁ yāvad-bhoktavyaṁ. Anyasūtradhārasya kasy=āpi saṁbaṁdho na hi. Śubhaṁ bhavatu sūtradhārebhyaḥ*. In other words, the status of *sūtradhāra* for a particular purpose was bestowed on a particular family from among a number of contending families of a community, and the entire community, that of the *sūtradhāras*, itself was marked out for special mention in the record.

The point then is that in addition to the essential distinction between the scribe and the engraver, the engraver himself did not represent a homogenous community either. The question of the existence of literacy or the absence of it also cannot be neatly divided between the scribe and the engraver. When faults occurred in records, as they often did, the specific contexts of the records must be looked into to understand where roots of such faults lay. In the next section of this note we turn our attention to one such record of the early historical period.

II

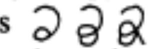
The second part of this note deals with a Kushāṇa-period Brāhmī inscription (Pl. 14.1) from Mathura, which appears to have been incised on the pedestal of a Jaina image, although precise information on this point is not available to us. The four-line inscription covers a space measuring 74 cm. × 19·1 cm., and the sizes of individual letters range between 5·4 cm. × 3 cm. and 1·6 cm. × 1 cm. We shall first present our reading of the text of the inscription, and then proceed on to:
(i) consider the 'aberrations' which the engraving of the record appears to reveal, (ii) offer a translation of the text based on the emendations which seem necessary, and finally (iii) dwell briefly on the overall significance of the record.

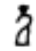
TEXT[31]

L. 1. *Siddhaṁ. Mahārājasya rājātirājasya Kaṇishkasya savatsare pañchame gṛishmāmāse chātu–*
L. 2. *rtthe 4 divase daśame 10 Koṭṭiyāto gaṇāto Buhmadāsiyāto kulato Ūchenāga–*
L. 3. *rito śākhoto Maginie Brahmanikāye cha nirvvārttānā Budhilasya dhitā Kṛishṇaba–*
L. 4. *lasya vadhu Vasukasya*[32] *dharmapati Viśākhamitāye dāna sarva-sakvāna-hita-sukhatthāye bhava(tu).*

1. The engraving of the first line is regular, no distinguishing feature being noticeable except for the downward slant of medial *ā* in *gṛishmāmāse*. This is sharply different from how the *ā mātrā* is added to other letters in the record.

However, instances of erratic engraving start appearing from line 2. In *Koṭṭiyāto*, medial *ā* for *yā* is a part of the medial strokes added to *to*, and this is as distinct on the estampage as it is on the photograph. In the next expression *Bu* is an incorrect engraving for *Bra*; *Brahmadāsiyāto* ought to have figured as the name of the *kula*. In *kulato*, the medial *ā* stroke for *lā* is absent; the expression which is usually found in other Mathura records is *kulāto*. The fourth letter from the right looks like *ja* with the horizontal, upper right stroke distinct both on the estampage and on the photograph. The reading has definitely to be changed to *ū* to derive the reading for the entire expression (last four letters of line 2 and first two letters of line 3) as *Ūchenāgarito*, although the expression usually has, in other records, a short *u* in the beginning.

In line 3, *kha* in what should be *śākhāto* has two unnecessary additional strokes in the fashion in which medial *o* is added. However, the strangest engravings are those of the third and fifth letters, in what has been tentatively read by us as *Brahmanikāye*, the justification for the reading given being the following. The third consonant which cannot be read with any certainty either as *tha* or *chha* because of the projection downward to the right, appears to have been engraved following a single line in the following stages  ; only assuming that it was intended to represent the looped variety of *na* can the entire sign be read as *ni.* A looped *na, albeit* with a flatter base, appears in this record in *nirvvārttānā.* A similar puzzle is presented by the fifth letter of what has been read as *Brahmanikāye.* The restoration *ye* is made on the assumption that what was intended was *ya*; the medial *i* is distinctly added to this letter, but only the reading *ye* is likely to yield some sense and establish a measure of parity with *Maginie* preceding it. In the next expression *nirvvārttānā*, the addition of *ā mātrā* in both *rvvā* and *rttā* is superfluous.

In line 4, apart from the fact that *dharmapati* is expected to be taken as *dharmapatnī*, the addition of *r* ought to have been on the left, and not on the right, of the upper part of *ma.*[33] The intended expression *sarvvasatvāna* appears as *sarvvasakvāna* in the record, the combination of *ta* and *va* being faulted on two counts. One, the deep curve which is seen in other *tas* of the record is absent here, the letter even otherwise having the distinct appearance of *ka.* Second, *va* which is expected to be added, without a long vertical, to the right curve of *ta* at its base (the usual form thus being ) is added to the middle of the upper consonant with a prominent vertical.

2. The aberrations we mentioned earlier are thus many, and their significance in the context of the present note will be taken up in the final section. On the basis of the emendations suggested, the following translation of the record may now be given.

TRANSLATION

> 'Accomplished. On the tenth day of the fourth month of summer, in year 5 of *mahārāja, rājādhirāja* Kaṇishka, (this) was gifted by Viśākhamitrā, daughter of Budhila, daughter-in-law of Kṛishṇabala, and virtuous wife of Vasuka, at the instance of Magini and Brahmanikā(?), who belonged to Koṭṭiya *gaṇa*, Brahmadāsika *kula* and Uchenāgari *śākhā.* Let this be for the welfare and happiness of all beings.'

3. The record is obviously of Jaina affiliation. Although the object of dedication by Viśākhamitrā is not specified in the text of the record, the reference to the Koṭṭiya *gaṇa*, Brahmadāsika *kula* and Uchenāgari *śākhā* affiliates it with many other Jaina records of early historical Mathura where too references are to be found to the identical *gaṇa*, *kula* and *śākhā.*[34] Judging it by its contents, the record thus does not offer anything which may be considered special.

However, the manner in which the engraving of the record was done throws up a few hints for speculation, and it is in this context that the discussion with which we started in the first section of this note will have some relevance. Two broad points may be made with regard to the manner in which the engraving of the record was done. First, it is possible that the inscription was copied from a version already written on some other material, and it would appear that the *lekhaka* or the original scribe may have been himself responsible for several inconsistencies. The names read as *Maginie* and *Brahmanikāye*, with two distinct endings *e* and *ye*, would seem to suggest this. So would *ū* in *ūchenāgarito.*

There is of course no internal proof in the record's contents that it was originally prepared by a scribe and then engraved by an artisan. However, what we have called its aberrations would suggest that they were caused by an attempt to produce an eyecopy, on stone, of something which had already been written out, and the work was done by some one who was apparently not familiar with what was written. The pointers to this supposition are in particular: *Koṭṭiyāto*, *śākhoto*, *Brahmanikāye* (if indeed the last intended letter was *ye*) and *sarvvasakvāna* (*kva* most obviously being a copyist's mistake for *tva*). If the supposition is considered tenable, it will be an additional evidence in support of the idea that the functions of the scribe and the engraver were essentially separate, irrespective of the fact that individuals or families of the categories of *śilpin* and *sūtradhāra* could be highly literate and could also achieve high status in society.

Notes and references

1. E. Hultzsch, *Inscriptions of Asoka* (Corpus Inscriptionum Indicarum, Vol. I), new edition (reprinted, Delhi-Varanasi, 1969), p. 177 and plate facing p. 177. The expression is: *Chapaḍena likhite lipikareṇa.*
2. Chitrarekha Gupta, 'The writers' class of ancient India—a case study in social mobility', *The Indian Economic and Social History Review*, Vol. 20, no. 2, 1983, p. 193.
3. In using the name of the script as Kharoshṭī, in place of the usual form Kharoshṭhī, we have followed B.N. Mukherjee, *Kharoshṭī and Kharoshṭī-Brāhmī Inscriptions in West Bengal (India), (Indian Museum Bulletin*, Vol. XXV) (Calcutta, 1990).
4. E. Hultzsch, *op. cit.*, plate facing p. 177.
5. Aśoka's Major Rock Edict 1 (Girnar version) opens with *iyaṁ dhaṁmalipi* and Edict 14 gives a statement regarding the types of edicts he got prepared. For the texts of the Major Rock Edicts we have followed D.C. Sircar, *Select Inscriptions bearing on Indian History and Civilization*, Vol. I (From the Sixth century B.C. to the Sixth century A.D.) (hereafter *SI*), second edition (University of Calcutta, 1965).
6. Hultzsch, *op. cit.*, relevant plate.
7. *Ibid.*, relevant plates.
8. *Ibid.*, plate facing p. 164.
9. A relevant and useful discussion is already available in D.C. Sircar, *Indian Epigraphy* (Delhi-Varanasi-Patna, 1965), chapters 3 and 4.
10. The translation is based on the text and the Bengali translation available in Panchanan Tarkaratna, *Yājñavalkya-Saṁhitā vā Yājñavalkya-Smṛiti* (in Bengali) (Calcutta, 1991), I. 318-320.
11. D.C. Sircar, *Indian Epigraphy*, p. 105.
12. For example, the Hathigumpha Inscription of Khāravela in which the claim is put forward on his behalf that he acquired expertise in various branches of learning, including writing: *lekha-rūpa-gaṇanā-vavahāra-vidhi-visāradena sava-vijāvadātena*, *SI*, p. 224.

13. Chitrarekha Gupta, *op. cit.*, p. 194.
14. *Ibid.*
15. D.C. Sircar, *Indian Epigraphy*, pp. 87-88.
16. E. Senart, 'The inscriptions in the caves at Nasik', *Epigraphia Indica*, Vol. VIII. 1905-06, reprinted (Delhi, 1981), p. 82, no. 12; *SI*, pp. 164-166.
17. Senart, *op.cit.*, p. 78, no. 10; *SI*, pp. 167-169.
18. Senart, *op.cit.*, p. 71, no. 4; *SI*, pp. 197-198.
19. See Senart, *op.cit.*, plate IV, no. 10, facing page 78.
20. N.P. Chakravarti, 'Brahmi Inscriptions from Bandhogarh', *Epigraphia Indica*, Vol. XXXI. 1955-56 (Calcutta, 1957), pp. 167-186.
21. Cited in N.P. Chakravarti, *op.cit.*, p. 168.
22. N.P. Chakravarti, *op. cit.*, pp. 167-168.
23. D.C. Sircar, *Indian Epigraphy*, p. 85.
24. G. Bühler, 'Two inscriptions from Jhalrapatan', *The Indian Antiquary*, Vol. V, 1876, pp. 180-182. (I owe this reference to Viswa Mohan Jha.)
25. *Ibid.*, p. 181.
26. F. Kielhorn, 'Deopara Stone Inscription of Vijayasena', *Epigraphia Indica*, Vol. I (1892), reprinted (New Delhi, 1971), pp. 305-315; N.G. Majumdar, *Inscriptions of Bengal*, Vol. III (The Varendra Research Society, Rajshahi, 1929), pp. 41-56.
27. For *rāṇaka* as a designation used by a category of ruling elites of the early medieval period see B.N.S. Yadava, *Society and Culture in Northern India in the Twelfth Century* (Allahabad, 1973), p. 150.
28. D.B. Diskalkar, 'Some unpublished inscriptions of the Chaulukyas of Gujarat', *Poona Orientalist*, Vol. 3, no. 1, pp. 21-22. (I owe this reference to Viswa Mohan Jha.)
29. *Ibid.*, p. 21.
30. *Su* obviously stands for *sūtradhāreṇa.*
31. The reading is based on the estampage as well as the photograph of the estampage. I am grateful to Mr. M.C. Joshi for the supply of the estampage, from which the photograph, published here, was taken.
32. The reading *ka* is clear from the estampage.
33. See, for example, H. Lüders, *Mathura inscriptions*, edited by K.L. Janert, (Göttingen, 1961), plate 80, line 1.
34. For other Mathura records mentioning the Koṭṭiya *gaṇa*, Brahmadāsika *kula* and Uchenāgari *śākhā* see G. Bühler, 'New Jaina Inscriptions from Mathura', *Epigraphia Indica*, Vol. I, pp. 371-393; *Idem*, 'Further Jaina Inscriptions from Mathura', *Epigraphia Indica*, Vol. II (1894), reprinted (New Delhi, 1984), p. 209, no. 37; H. Lüders, 'A List of Brahmi Inscriptions (From the earliest times to about A.D. 400 with the exception of those of Aśoka', Appendix to *Epigraphia Indica*, Vol. X (Calcutta, 1912), nos. 18-20, 29, 32, etc.

15

Vihāra-maṇḍalas in Gujarat in the 6th and 7th centuries A.D.—their evidence in epigraphy and archaeology

Marlene Njammasch

The early medieval kingdom of Valabhī in south Gujarat existed from approximately the last quarter of the 5th century A.D. to the eighties of the 8th century A.D. The dynasty of the Maitrakas ruled in uninterrupted succession for 300 years until it disappeared for reasons we do not know.[1]

Valabhī, the capital of the kingdom, ranked as a centre of Buddhist learning in India during the early Middle Ages. The Chinese pilgrim Xuan Zang, who travelled through India from A.D. 629 to 645, reports on a kingdom called Fa-La-Pi (Valabhī): 'There are some hundred *saṇghârâmas*, with about 6000 priests. Most of them study the Little Vehicle according to the Sammatîya school.'[2] Furthermore, he narrates that King T'u-lu-h'o-po-tu (Dhruvapaṭa)[3] had been converted to Buddhism quite recently.[4] He yearly summoned a great assembly, and for seven days bestowed in charity the three garments and medicaments, or their equivalent in value, and precious articles in order to redeem them at twice their price afterwards.[5] Near the capital of Valabhī Xuan Zang visited a great monastery: 'Not far from the city is a great *saṅghârâma* which was built by the Arhat Âchâra ('O-che-lo); here the Bôdhisattvas Guṇamati and Sthiramati (Kien-hwui) fixed their residences during their travels and composed treatises which have gained a high renown.'[6]

I-tsing, who travelled through India during the last third of the 7th century A.D., knows Valabhī already as a famous centre of learning in India, as a kind of Buddhist university where not only monks, but obviously also the élite of government officials got educated. The students devoted themselves to grammar, logic, and metaphysics, etc.: 'Thus instructed by their teachers and instructing others they pass two or three years, generally in the Nâlanda monastery in Central India, or in the country of Valabhî (Walâ) in Western India. These two places are like Chin-ma, Shih-ch'ü, Lung-mên, and Ch'ue-li in China, and there eminent and accomplished men assemble in crowds, discuss possible and impossible doctrines, and after having been assured of the excellence of their opinions by wise men, become far famed for their wisdom.'[7] Moreover, I-tsing reports that the thus-instructed students proceeded to the kings' court, where they tried to be brilliant at debates and to show their political talent seeking to become a high-ranking official.[8] They got abundant reward for their activities: 'They receive grants of land, and are advanced to a high rank.'[9]

Already in the account of Xuan Zang it is expressed that in the kingdom of Valabhī especially favourable conditions for the flourishing of Buddhism must have existed. Compared with its neighbouring countries, the Maitraka kingdom had the largest number of monasteries and inmates. This fact may be illustrated by the following table, showing the number of monasteries (M) and inmates (I).

Valabhī		Surāshṭra		Kachchha		Ānandapura		Mālava		Bhārukachchha	
M	I	M	I	M	I	M	I	M	I	M	I
100	6000	50	3000	10	1000	10	1000	100	2000	10	300

Xuan Zang knows Valabhī as a centre of learning. He refers to the great monastery near the capital which is said to have been built by Arhat Āchāra and which had been inhabited by such great Buddhist scholars as Guṇamati and Sthiramati. I-tsing is familiar with Valabhī as a place with a famous Buddhist university which could be compared with Nālandā university. Obviously Nālandā was well reputed as a centre of Buddhist learning at the time of Xuan Zang, but Valabhī not yet.[10] The rise of Valabhī seems to have been taken place during the fifty years between the stay of Xuan Zang and that of I-tsing in India. We think that we have found at least one reason for this rise in the accounts of Xuan Zang on Valabhī. As mentioned above, he narrates that King Dhruvapaṭa had recently been converted to Buddhism. There is no doubt that the royal patronage contributed to the flourishing of Buddhism in the Maitraka kingdom.

On the basis of two different groups of source material, we will try to describe the development of monastic complexes under Maitraka rule and, as far as possible, to prove or to disprove the information delivered by the Chinese pilgrims. Approximately one-fifth of the total number of Maitraka copper-plates represent Buddhist donative inscriptions. Twenty-two copper-plate inscriptions ranging from A.D. 535 to 685 (Valabhī era 216 to 356) have been preserved.[11] Out of these inscriptions, nine belong to the 6th century A.D. and thirteen to the 7th century A.D. On the basis of these twenty-two inscriptions, it is possible to prove the existence of eighteen Buddhist monasteries in the Maitraka kingdom. Fifteen of them were monasteries for monks, and only three of them were nunneries. Particularly remarkable is the fact that out of these eighteen monasteries, fourteen were concentrated in and around the capital of Valabhī. Only four monasteries were located in other towns and villages of the kingdom: one in the village of Bhaṭṭī-padra-grāma,[12] one in the village of Yodhāvāka-grāma[13] and one in the *svatala* of the town of Vaṅśakaṭa.[14] The place of the fourth monastery is lost due to the fragmentary state of the inscription concerned.[15]

As mentioned above, fourteen monasteries were situated in Valabhī or in the environment of the capital. These monasteries can be arranged in a special manner: three of them were probably independent *vihāras* and not *maṇḍalas*.

1. A.D. 588: Śrī-Bappapādīya-vihāra, which had been built by the venerable religious teacher Sthiramati and which was located in Valabhī—*Valabhyām-āchārya-bhadanta-Sthiramati-kārita-Śrī-Bappapādīya-vihāre*.[16] G. Bühler[17] and K. Virji[18] identify this monastery with that *saṅghārāma* mentioned by Xuan Zang[19] where the two famous Buddhist teachers Guṇamati and Sthiramati are supposed to have taught. Sthiramati was a philosopher of the Buddhist Yogāchāra school and lived in the 6th century A.D.[20] He is said to have been the disciple of Vasubandhu, an exponent of the Buddhist school of the Sarvāstivādin-Vaibhāshikas.[21] Xuan Zang mentioned Sthiramati also among the prominent teachers of the Buddhist university at Nālandā.[22] The question why the monastery built by Sthiramati was not named after him, but was called Bappapādīya-vihāra cannot be answered. The inscriptional material is too scarce in this respect.

2. Between A.D. 572 and 589: the name of one monastery at Valabhī is lost due to the fragmentary state of the inscription concerned.[23]

3. A.D. 606: The passage which originally must have mentioned the name and the location of the monastery is now illegible. As this copper-plate inscription has been found in the ruins of ancient Valabhī, the assumption that the monastery was situated in the capital is not unreasonable.[24]

Eleven of the fourteen monasteries in and around Valabhī belonged to two large monastic complexes designated as *vihāra-maṇḍalas*. These two *vihāra-maṇḍalas* were called Duḍḍā-vihāra-maṇḍala and Yaksha-Śūra-vihāra-maṇḍala. According to the inscriptional evidence, the monastic complex named after Duḍḍā comprised nine monasteries, and the monastic complex of the Yaksha-Śūra-vihāra-maṇḍala covered two. It cannot be ruled out, however, that some other monasteries not known to us due to lack of inscriptions belonged to these *maṇḍalas*. Compared with the Duḍḍā-vihāra-maṇḍala, the Yaksha-Śūra-vihāra-maṇḍala showed one peculiarity: it was a nunnery. The two nunneries were:

1. A.D. 606: the Yaksha-Śūra-vihāra itself.[25] Another inscription dating from the year A.D. 609 also records a donation to the Yaksha-Śūra-vihāra. Furthermore, it gives the exact location of this nunnery—*Valabhī-svatala-nivishṭa-Yaksha-Śūra-kārita-bhikshuṇī-vihāre* (in the nunnery which had been built by Yaksha-Śūra and which was situated in the urban area, *svatala*, of Valabhī).[26]

2. A.D. 638: the nunnery of Pūrṇabhaṭṭā in the Yaksha-Śūra-vihāra-maṇḍala—*Sāmanta-Kakkuka-mātṛi-kulaputrikā-Pūrṇabhaṭṭā-kārita-vihāra* (the nunnery which had been built by the *kulaputrikā* Pūrṇabhaṭṭā, mother of the vassal Kakkuka).[27] In A.D. 609 the nunnery still had been designated as *vihāra* only. Twenty-nine years later, A.D. 638,

it was called *vihāra-maṇḍala—Vala(bhyābhyāse) sannivishṭa Yaksha-Śūra-vihāra-maṇḍale* (in the Yaksha-Śūra-vihāra-maṇḍala which had been founded near Valabhī).[28] The second nunnery was donated by a woman. We can assume that Pūrṇabhaṭṭā was not a nun but an *upāsikā*, a lay-sister, otherwise her title (*kulaputrikā*) cannot be explained.[29] During hardly two decades, the Yaksha-Śūra-vihāra seems to have developed into a *vihāra-maṇḍala*. This process witnessed that even nunneries could transform into monastic complexes.

Nevertheless, the most important monastic complex was the Duḍḍā-vihāra-maṇḍala. The niece of King Dhruvasena I had founded (*kārita*) this monastery. A deed of foundation, however, does not exist. Her uncle, King Dhruvasena, made the first donation in favour of this monasterty in A.D. 536 and reported that Duḍḍā was the daughter of his sister (*svabhāgineyī*). Duḍḍā was not a nun but a lay sister—*svabhāgineyī-param-opāsikā-Duḍḍā* (Duḍḍā, venerable lay sister, my niece).[30] King Dhruvasena I reigned from *c.* A.D. 519 to 549. The inscription mentioned above is dated in the year A.D. 536. At that time, the Duḍḍā-vihāra must have existed already. Dhruvasena I donated the village Pippalaruṅkharī to the monastery. Only one year later, A.D. 537, he again granted a village to the *vihāra* of his niece. This time, however, he did not directly endow the Duḍḍā-vihāra with the village of Vaṭaprajyaka, but the *vihāra-kuṭi* which had been established by the venerable religious teacher Buddhadāsa—*(ā)chāryya-bhadanta-Buddhadāsa-kārita-vihāra-kuṭyāṁ*.[31] The sanctuary of a *vihāra* where the particularly valuable and honoured statue of the Buddha was kept, the *vihāra-kuṭi*, represented an important part of Buddhist *vihāras* in the early Middle Ages in India. I-tsing gives a vivid description of the *vihāra-kuṭi*, the Buddha statue and the cult practices around the *kuṭi* and the statue.[32]

The *vihāra-kuṭi* built by Buddhadāsa was situated in the Duḍḍā-vihāra—*Valabhī-tala-sva-bhāgineyī-Duḍḍā-kārita-(vihāra?)*. . . .[33] This description allows two interpretations: the Duḍḍā-vihāra and the Buddhadāsa-vihāra-kuṭi were two different structures, or, the *vihāra-kuṭi* was situated within the building of the Duḍḍā-vihāra. The second assumption would support the idea of G. Schopen that the Buddha himself was thought to be the recipient of the donations.[34] But, as the passage mentioned above is the only one within the twenty-two Buddhist donative inscriptions of the Maitrakas which supports the idea of Schopen at least to some extent, caution seems to be required. For reasons of the mode of donating, we rather suppose, that the *vihāra-kuṭi* was an autonomous unit in structural as well as in economic terms. We will turn to this problem again when we describe the Duḍḍā-vihāra-maṇḍala in a more detailed way. The Duḍḍā-vihāra must have been founded before A.D. 536, possibly between A.D. 519 (the beginning of the reign of Dhruvasena I) and 536. In the year A.D. 536, the monastery consisted of one or, may be, two *vihāras.* The Duḍḍā-vihāra was situated in the capital of Valabhī. An inscription dating from A.D. 559 reads *Valabhīpure* (in the town of Valabhī).[35] In two other copper-plate records, it is designated as being located in *Valabhītala,* in the territory of Valabhī.[36] In the inscriptions from A.D. 630 and 651 the term *Valabhī-svatala* is used. The Duḍḍā-vihāra-maṇḍala was situated in the *svatala* of Valabhī, i.e. in the territory belonging to the town of Valabhī.[37] The term *svatala* occurs in Maitraka epigraphs always with reference to towns, but never in connection with villages. Therefore, it seems to be reasonable to translate this term with "urban land" or "city territory". Two other inscriptions dating from the second half of the 7th century A.D. support the assumption that the Duḍḍā-vihāra-maṇḍala was located in Valabhī proper or at least in the immediate precincts of Valabhī. The passages concerned read—*Śrī-Valabhyām (abhyanta)rikā* etc.[38] and *Śrī-Valabhyantarikāyāṁ,*[39] i.e. inside the venerable (town of) Valabhī.

The Duḍḍā-vihāra seems to have prospered extraordinarily fast, for already in the year A.D. 564 it was designated as *mahāvihāra.*[40] About 100 years after its foundation it was called *vihāra-maṇḍala,*[41] a term for a monastic complex consisting of several autonomous monasteries. In A.D. 564 the Duḍḍā-vihāra must already have comprised four *vihāras* and in A.D. 630 it covered at least six *vihāras.* The copper-plates recording land-grant charters in favour of the Duḍḍā-vihāra-maṇḍala range from A.D. 536 to 685. Thereafter, the epigraphical sources are silent with regard to the further destiny of the Duḍḍā-vihāra-maṇḍala of Valabhī.[42]

According to the epigraphical evidence, the great monastic complex of Valabhī increased up to nine monasteries including the Duḍḍā-vihāra itself during the period from A.D. 536 to 685, i.e. within a span of 149 years. The following monasteries of the *maṇḍala* chronologically arranged here are recorded in the copper-plate inscriptions.

1. Before A.D. 536: the *vihāra,* founded by Duḍḍā.
2. A.D. 537: the *vihāra-kuṭi* built by Buddhadāsa.[43]
3. Between A.D. 559 and 567: the Abhyantarikā-vihāra, built by Mimmā.[44]
4. According to the inscription referred to above, Mimmā founded the Abhyantarikā-vihāra not far from the so-called Bhaṭārka-vihāra. The Bhaṭārka-vihāra must already have existed when Mimmā established the new monastery. The Abhyantarikā-vihāra, probably, belonged to the Duḍḍā-vihāra-maṇḍala. Therefore, it could be presupposed that the Bhaṭārka-vihāra also was a part of it.[45]
5. A.D. 590: the *vihāra* which had been built by the trader Yakkamāli and which was situated inside the Duḍḍā-vihāra—*Duḍḍā-vihārasy-ābhyantare.*[46]
6. A.D. 630: the *vihāra* which had been built by Gohaka and which belonged to the Duḍḍā-vihāra-maṇḍala—*Valabhī-svatala-sannivishṭa-rājñī-Duḍḍā-kārita-vihāra-maṇḍal=āntargata-Gohaka-kārita-vihāra* etc.[47]
7. Between A.D. 641 and 650: The *devakula* of Tārādevī, built by the *divirapati*

Śrī-Skandabhaṭa in Kāṇasihānaka-grāma[48] and situated in the Duḍḍā-vihāra-maṇḍala—*Valabhy-abhyantara-Duḍḍā-vihāra(stha?)-bhikshu-saṅghānāṁ* etc.[49]

8. A.D. 662: the *vihāra* which had been built by the Āchārya and Bhikshu Vimalagupta and which was located in Kukkurāṇaka-grāma.[50] The Vimalagupta-vihāra is mentioned again in an inscription dating from A.D. 675, where it is designated once more as belonging to the Duḍḍā-vihāra-maṇḍala.[51] The inscription from A.D. 662 witnessed that the Vimalagupta-vihāra was situated in the Sthiramati-vihāra, which, on the other hand, was part of the Duḍḍā-vihāra-maṇḍala—*Duḍḍā-vihāra(maṇḍal-āntargat-ā)chārya-bhikshu-Sthiramati-kārita-vihāre āchārya-bhikshu-Vimalagupta-kāri(ta-bhagava)* . . .[52] According to the inscriptional evidence, a kind of hierarchy of monasteries seems to have existed in the Duḍḍā-vihāra-maṇḍala. In the year A.D. 588, the Sthiramati-vihāra was still an independent monastery. Seventy-four years later, it appeared as a part of the Duḍḍā-vihāra-maṇḍala; moreover, even a new monastery (i.e. the Vimalagupta-vihāra) had been founded within its monastic district in the mean time.

9. Before A.D. 662: the Sthiramati-vihāra was integrated into the Duḍḍā-vihāra-maṇḍala.[53]

In A.D. 675 the Duḍḍā-vihāra-maṇḍala, founded before A.D. 536, consisted of nine monasteries. Since A.D. 536 new monasteries had been built, but evidently already existing monastic foundations, e.g. the Sthiramati-vihāra, had become incorporated into the great monastic complex of Valabhī, too. I-tsing who travelled through India between A.D. 671 and 695 could with perfect right report on a great monastic centre, a Buddhist university at Valabhī. So the lifespan of the Duḍḍā-vihāra-maṇḍala can be fixed from before A.D. 536 until the end of the 7th century A.D.

It is rather difficult to bring the information of Xuan Zang into line with the inscriptional data. The Chinese pilgrim, who travelled through India from A.D. 629 to 645, does not point out Valabhī as a Buddhist university. He only refers to the great *saṅghārāma* not far from the town. In the biography of Xuan Zang written by the Chinese monk Hwui Li,[54] the existence of a great monastery in or near Valabhī is not even mentioned.[55] Xuan Zang narrates that the *saṅghārāma* had been built by Arhat 'O-che-lo (Āchāra).[56] Furthermore, Sthiramati is said to have lived and taught there for some time. In the year A.D. 630, however, the Duḍḍā-vihāra-maṇḍala with six monasteries already existed at Valabhī. Therefore, it is difficult to explain why Xuan Zang did not mention the *saṅghārāma* as founded by the royal niece Duḍḍā. There is no doubt that the Duḍḍā-vihāra-maṇḍala was by far the largest monastic complex of Valabhī in A.D. 630, the time when Xuan Zang must have travelled through the western part of India. Moreover, the Duḍḍā-vihāra evidently had been built before A.D. 536. In A.D. 588 the Śrī-Bappapādīya-vihāra which had been founded by Sthiramati already existed, although we possess the exact inscriptional proof not before A.D. 662. We cannot completely rule out that the Sthiramati-vihāra belonged to the Duḍḍā-vihāra-maṇḍala even in A.D. 630. In the thirties of the 7th century A.D. Xuan Zang must have seen the Duḍḍā-vihāra-maṇḍala. Perhaps he was not able to see through the complicated organisational structure of the *vihāra-maṇḍalas* of Valabhī.

The Buddhist donative inscriptions of the Maitrakas witnessed that the *vihāra-maṇḍalas* of Gujarat in the early Middle Ages were large monastic complexes which obviously cannot be taken as structural and economic unities. The *maṇḍalas* seem to have consisted of separate monasteries with own areas situated within the boundaries of the *maṇḍalas*. Probably, new monasteries could be founded within the monastic district of the individual *vihāras*. It seems that these new *vihāras* were subordinated to the older ones, as we have seen in the case of the Vimalagupta-vihāra which was located within the Sthiramati-vihāra. Thus, a formal hierarchy of larger and smaller, important and less important monasteries within the association of the *maṇḍalas* developed in the course of time. Probably, we should not presuppose that the *vihāra-maṇḍalas* were large uniform territories. Out of the nine *vihāras* of the Duḍḍā-vihāra-maṇḍala, seven were located either within or near the town of Valabhī. Two of the monasteries were situated in villages: the *devakula* of Tārādevī in Kāṇasihānaka-grāma, and the Vimalagupta-vihāra in Kukkurāṇaka-grāma. At least the village of Kukkurāṇaka-grāma is supposed to have been located within or very near to the Duḍḍā-vihāra-maṇḍala—*Duḍḍā-vihāra-maṇḍala-*(*prāveśya*)*-Kukkurāṇaka-grāma-nivishṭ-āchārya-bhikshu-Vimalagupta-kārita-*(*vihāre*) (in the monastery which had been built by the learned monk Vimalagupta and which is situated in the village of Kukkurāṇaka which is incorporated into the Duḍḍā-vihāra-maṇḍala).[57] It is also imaginable that Kukkurāṇaka-grāma was situated within the boundaries of the *vihāra-maṇḍala* territory. Due to the fragmentary state of the inscription referred to, it is more difficult to define the location of Kāṇasihānaka-grāma where the Tārā-*devakula*, the temple of the Buddhist goddess Tārā, existed.[58]

The interdependences between these separate monasteries, which possibly had the character of relations between parent and filial monasteries, cannot be sufficiently explained. Evidently, the Duḍḍā-vihāra itself, the Yakkamāli-vihāra and, probably, the Buddhadāsa-vihārakuṭi, i.e. altogether three monasteries, were located in the monastic district of the Duḍḍā-vihāra. In the description of their location, the term "*abhyantara*" occurs, which points to the fact that these monasteries could have been situated inside the monastic district of the Duḍḍā-vihāra. The passages referring to the Sthiramati-vihāra and Vimalagupta-vihāra as well as to the Gohaka-vihāra read *Duḍḍā-vihāra-maṇḍal-āntargata* etc. (situated within the Duḍḍā-vihāra-maṇḍala). Possibly, this can be explained as different interdependences between the separate monasteries. Those located inside, directly belonged to the parent monastery, the Duḍḍā-vihāra. The others, however, were included in the Duḍḍā-vihāra-maṇḍala, but, were not necessarily part of the parent monastery. The epigraphical sources do not allow clear conclusions regarding the mutual relations of the monasteries in the Duḍḍā-vihāra-maṇḍala.

Nevertheless, one fact is evident. The interdependences, referred to, rather seem to have been of traditional or religious kind. They were, possibly, a matter of piety. But in economic terms, each monastery represented an independent unit. This phenomenon can be proved on the basis of the mode of donating in Buddhist land-grants. In case land or villages were bestowed, the grantee was always the monastery explicitly mentioned by name, but never the whole *vihāra-maṇḍala.* Strictly speaking, it was the congregation of monks or nuns of the monastery concerned. The village of Uṭṭapālaka in Surāshṭra was granted to the *bhikshu-saṁgha* of the monastery built by the trader Yakkamāli, but neither to the Duḍḍā-vihāra where the Yakkamāli-vihāra was located in nor to the *vihāra-maṇḍala* both of them belonged to.[59] The Yaksha-Śūra-vihāra-maṇḍala shows the same peculiarity. Dhruvasena II endowed the nunnery of the Pūrṇabhaṭṭā-vihāra with the village of Nāgādinnānaka in Surāshṭra—*Pūrṇabhaṭṭā-kārita-vihāra-nivāsi-nānādig-abhyāgat-ārya-bhikshuṇī-saṁghāya* (to the venerable order of nuns coming from several directions and living in the monastery which had been built by Pūrṇabhaṭṭā).[60]

The grants of land and of villages were accompanied by the usual privileges and immunities the given monastery could enjoy eternally. We know hardly anything about the reasons which induced the royal donors to transfer whole estates or villages to the separate monasteries of the *maṇḍala*, but not to the Duḍḍā-vihāra-maṇḍala as a whole. One reason for this phenomenon, however, should be seen in the organisation of the *maṇḍalas*, which consisted of separate monasteries. This can be proved on the basis of the archaeological material, too. The contemporary monastic complexes included isolated buildings located in some distance from each other. There are good grounds for the assumption that at least one reason for these architectural peculiarities can be found in the inner structure of the Buddhist *saṁgha.* Even in the early Middle Ages, the *saṁgha* was evidently not able to establish effective hierarchical structures on the basis of which the economic affairs of the monastic life could have been managed. Strictly speaking, the monasteries kept a kind of hierarchy of learning which had hardly anything to do with economic matters even in the early Middle Ages. Unlike the monasteries of the German Middle Ages, the monasteries in Gujarat seem to have been connected with agriculture only to a very small scale. Seen from this angle, the Buddhist doctrine represented the main hindrance for the development of monastic hierarchies which would have been capable to organise all the aspects of the spiritual and economic life of the monasteries.

It would have been desirable to compare the epigraphical material with archaeological data from excavations at Vala (Valabhī). Unfortunately, publications particularly referring to Buddhist remains of Valabhī were not accessible to me.[61] In Gujarat, however, several monastic sites have been discovered. The excavation of the large Buddhist complex of Devnimori under the supervision of R.N. Mehta in the sixties is thought to be the most important one conducted so far.[62] The complex consisted of five *stūpas* including the *mahāstūpa*, one apsidal *chaitya* and two *vihāras* (Vihāra I and Vihāra II). Mehta thinks that the *mahāvihāra* (Vihāra I) dates back to an earlier phase than the *mahāstūpa*. In his opinion the construction of the *mahāstūpa* should be assigned to the period between A.D. 305 and 375.[63] 'This vihara, therefore, should have been built prior to the construction of the stupa, that is, before the third quarter of the fourth century.'[64] For several reasons he concludes then: 'This massive structure, it may be assumed, must have been in existence for a couple of decades before the third quarter of the fourth century A.D. This evidence, therefore, suggests that the Maha Vihara was initially constructed probably in the century preceding the third quarter of the 4th century A.D.'[65] Unlike the Duḍḍā-vihāra which was founded approximately in the first quarter of the 6th century A.D., i.e. under the Maitraka rule, the Vihāra II at Devnimori had been built during the rule of the Western Kshatrapas over south Gujarat. The chronological coincidence of the decline of both monastic complexes, however, is rather remarkable. The sources become silent in the case of the Duḍḍā-vihāra-maṇḍala after A.D. 685, or taking into consideration the accounts of I-tsing, towards the close of the 7th century A.D. Regarding the monastic complex of Devnimori, Mehta writes: 'It could, therefore, be assumed that this flourishing settlement was coming to an end in about 7th or 8th century A.D. The vihara was tottering and the parts that were fallen were given up to nature, which covered up this monument by the wind blown earth and vegetation.'[66] We suppose that the decline of both the monastic complexes was connected with the gradual loss of royal patronage. In the 8th century A.D., the rivalry between the Buddhist *vihāras* and the Brāhmaṇical *devakulas* is already evident. With regard to the excavations at Devnimori, Mehta reports: 'The excavations on other mounds at Devnimori indicate that the Shaivas also had built their temples here. Some of them were contemporary to the Buddhist settlement.'[67]

After Śīlāditya II, who reigned from *c.* A.D. 658 to 685, Buddhist donations are no longer recorded. In the early Middle Ages, the Brāhmaṇical sects, as we know, attracted more and more adherents among the mainly rural population, whereas the urban strata, who had formed the majority of the *upāsakas* in ancient times, had vanished due to the urban decay in south Gujarat. As soon as the population increasingly leaned to Brāhmaṇical sects and *devakulas*, the loss of royal patronage must have seriously affected the Buddhist monasteries. The very fact that so may monasteries concentrated in and around the capital of Valabhī points out the importance of the material and spiritual support of the Maitraka rulers for the Buddhist monasteries. It seems to be symptomatic that, according to the archaeological evidence, the Buddhist monastic complex of Devnimori, which we think to have been a *vihāra-maṇḍala*, had never been destroyed. It decayed, was abandoned and fell into ruins. Xuan Zang saw in the first half of the

7th century A.D. in all parts of India numerous temples of the "heretics" and noted that these sects had thousands of followers.

The *mahāvihāra* of Devnimori belongs to the *chatuḥśāla*-type. Around an open courtyard thirty rooms were arranged. A brick flooring was laid down in the courtyard. The construction of Vihāra II took place at a later date when the major phase of building of the *mahāvihāra* and the *mahāstūpa* was coming to an end. 'It was at a greater distance from the stupa and Vihara I. It is a much smaller copy of the latter.'[68] In this way the archaeological findings confirm the facts derived from the epigraphical material. In a *vihāra-maṇḍala* smaller and larger, important and not so important monasteries existed, and moreover, the sources witnessed that in many cases a kind of parent *vihāra* represented the nucleus of the later *maṇḍala*. Regarding Vihāra I Mehta wrote: 'The present study showed that the original vihara was probably a small brick structure 135'×125" (Phase I) . . . It is very clear that the plan of the exterior was changed twice.'[69] The Duḍḍā-vihāra-maṇḍala arose from such a nucleus, the Duḍḍā-vihāra founded by the niece of King Dhruvasena I. The *vihāra-maṇḍalas* in the kingdom of the Maitrakas of Valabhī consisted of separate monasteries. They increased in the course of time from small independent *vihāras* to large monastic complexes. These complexes comprised a number of *vihāras* and *stūpas* within their boundaries. In Devnimori several additional brick structures were discovered, which induced Mehta to formulate the idea: 'At this site other viharas were built. Brick constructions as seen on the surface suggest that more than two viharas existed in this area.'[70]

The results of the excavations derived from the Buddhist centre of Devnimori confirm mainly the historical picture delivered by the Buddhist land-grants of the Maitrakas. In the early Middle Ages in Gujarat the *vihāra-maṇḍalas* included a number of separate *vihāras* and *stūpas* in a given monastic territory. The Duḍḍā-vihāra-maṇḍala comprised even monasteries situated in other villages outside the capital of Valabhī. The *maṇḍalas* represented centres of Buddhist teaching and learning and the separate *vihāras* gained at least economic independence.

Notes and references

1. M.R. Majumdar (ed.), *Historical and Cultural Chronology of Gujarat* (Baroda, 1960), p. 226. 'The Maitraka family of Valabhī was overthrown after this time (i.e. A.D. 766) by an expedition from Sindh under Amru ibn Jamāl.'
2. *Si-Yu-Ki, Buddhist Records of the Western World*, transl. from the Chinese of Hiuen Tsiang (A.D. 629), by S. Beal, (London, 1884, reprint Delhi, 1981), Vol. 2, p. 266.
3. Probably King Dhruvasena II (A.D. 627-641), cf. K. Virji, *Ancient History of Saurashtra (being a study of the Maitrakas of Valabhi V to VIII centuries* A.D.*)*, (Bombay, 1955), p. 71.
4. *Si-Yu-Ki, op. cit.*, p. 267.
5. *Ibid.*
6. *Ibid.*, p. 268.

7. *A Record of the Buddhist Religion as practised in India and the Malay Archipelago (A.D. 671-695)* by I-tsing, transl. by J. Takakusu, (Oxford, 1896, reprint New Delhi, 1982), p. 177.
8. *Ibid.*
9. *Ibid.*, p. 178.
10. *Si-Yu-Ki*, *op. cit.*, pp. 170-172.
11. About 100 inscriptions of the Maitrakas have been discovered so far.
12. Gadre, *JUB*, Vol. III, pt. 1, no. I, p. 79, l. 16 (Pl. B).
13. *IA*, Vol. 1, 1872, p. 45.
14. Diskalkar, *JBBRAS*, NS, I, 1, no. VIII, p. 18, l. 22.
15. *EI*, XXXVIII, 37 B, p. 223, l. 7.
16. D.B. Diskalkar, *Selections from Sanskrit Inscriptions* (Delhi, 1977), p. 107.
17. *IA*, Vol. VI, 1877, p. 9.
18. Virji, *op. cit.*, p. 174.
19. *Si-Yu-Ki*, *op. cit.*, p. 268.
20. H.W. Schumann, *Buddhismus: Stifter, Schulen und Systeme*, (Olten und Freiburg, 1991^{6}), p. 185.
21. E. Lamotte, *Histoire du Bouddhisme Indien, des origines à l'ére Śaka* (Louvain, 1958), p. 577.
22. *Si-Yu-Ki*, *op. cit.*, p. 171.
23. Diskalkar, *JBBRAS*, NS, I, 1, no. IV, p. 23, l. 27.
24. *IA*, Vol. I, 1872, p. 46, ll. 6-7.
25. Gadre, *JUB*, Vol. III, pt. 1, no. II, p. 82, l. 22.
26. *Ibid.*, no. III, p. 84, l. 21.
27. *Ibid.*, no. V, p. 90, l. 34.
28. *Ibid.*, p. 90, ll. 33-34.
29. *Kulaputrikā*, a woman of a distinguished or aristocratic family.
30. *IA*, Vol. IV, 1975, p. 105, l. 4 (Pl. II).
31. *JRAS*, NS, Vol. 27, 1895, Section VI, Art. X, p. 383, l. 18.
32. Takakusu, *op. cit.*, p. 155.
33. *JRAS*, NS, Vol. 27, 1895, Section VI, Art. X, p. 383, l. 17.
34. G. Schopen, 'The Buddha as an Owner of Property and Permanent Resident in Medieval Indian Monasteries', *Journal of Indian Philosophy*, 18, 1990, pp. 181-217.
35. *IA*, Vol. VII, 1878, p. 67, l. 2 (Pl. II).
36. *JRAS*, NS, Vol. 27, 1895, Section VI, Art. X, p. 383, l. 17; *EI*, XIII, 30, p. 339, l. 8.
37. *IA*, Vol. VI, 1877, p. 15, l. 11; Diskalkar, *JBBRAS*, NS, I, 1, no. IX, p. 36, l. 11.
38. Diskalkar, *JBBRAS*, NS, I, 1, no. XVII, p. 63, l. 51.
39. *Ibid.*, no. XI, p. 42, l.22.
40. *EI*, XIII, 30, p. 339, l. 8.
41. *IA*, Vol. VI, 1977, p. 15, l, 11.
42. King Śīlāditya II is the last Maitraka king making land-grants in favour of the Duḍḍā-vihāra-maṇḍala; moreover, he is the last ruler of the dynasty donating land or villages to Buddhist *vihāras*. After his time onwards until the end of the Maitraka rule only land-grants to Brāhmaṇas are recorded.
43. *JRAS*, NS, Vol. 27, 1895, Section VI, Art. X, p. 383, l. 18.
44. *IA*, Vol. V, 1876, p. 207, l. 7.
45. Cf. Virji, *op. cit.*, p. 172. There is no direct evidence that this monastery was part of the Duḍḍā-vihāra-maṇḍala.
46. Acharya, *JBBRAS*, NS, I, 1, no. II, p. 68, l. 5 (Pl. II); cf. *IHQ*, Vol. XVI, 1939, p. 816.
47. Bhavnagar no. IV, p. 41, l. 12 (Pl. II).
48. *EI*, XXXVIII, 37 A, p. 222, ll. 40-41.
49. *Ibid.*, l. 42.
50. Diskalkar, *JBBRAS*, NS, I, 1, no. X, p. 39, ll. 21-22.
51. *Ibid.*, no. XVIII, p. 63, ll. 51-52.
52. *Ibid.*, no. X, p. 39, l. 21.

53. *Ibid.*
54. *The Life of Hiuen-Tsiang*, by the Shaman Hwui Li, transl. by S. Beal, (London, 1911).
55. *Ibid.*, pp. 149-150.
56. *Si-Yu-Ki*, *op. cit.*, p. 268.
57. Diskalkar, *JBBRAS*, NS, I, 1, no. X, p. 39, l.22.
58. *EI*, XXXVIII, 37 A, p. 222, ll. 40-42.
59. Diskalkar, *JBBRAS*, NS, I, 1, no. II, p. 68, l.13 (Pl. II).
60. Gadre, *JUB*, Vol. III, pt. 1, 1934, no. V, p. 90, ll. 34-35 (Pl. B).
61. R. N. Mehta. 'Valabhipur of the Maitrakas', *JOI*, Vol. XIII, 1964, no. 3, pp. 240-251; Mehta writes that Father Heras excavated at Valabhī, 'but the complete description of this excavation is not available, . . .', *ibid.*, p. 243; obviously, the Buddhist *vihāras* of Valabhī are not yet excavated; see also M. K. Thakor, 'A Bronze Image of Buddha from Valabhipur', *JOI*, Vol. XVI, no. 1, 1966, p. 81.
62. *Excavation at Devnimori (A Report of the Excavation conducted from 1960 to 1963)*, by R. N. Mehta and S. N. Chowdhary, (Baroda, 1966).
63. *Ibid.*, pp. 28-29.
64. *Ibid.*, p. 29.
65. *Ibid.*
66. *Ibid.*, p. 30.
67. *Ibid.*, pp. 186-87.
68. *Ibid.*, p. 30.
69. *Ibid.*, p. 45.
70. *Ibid.*, p. 178.

Abbreviations and bibliography

Acharya, *JBBRAS*, NS, I, 1, no.	'Notes on Some Unpublished Copper-plates Belonging to the Bombay Branch of the Royal Asiatic Society and Lent to the Prince of Wales Museum of Western India', by G. V. Acharya, *JBBRAS*, New Series, ed. by V. S. Sukhthankar, Volume I, part 1 (London, Bombay, 1925), pp. 64-75.
Bhavnagar no.	*A Collection of Prakrit and Sanskrit Inscriptions*, published by the Bhavnagar Archaeological Department, (Bhavnagar, 1895).
Diskalkar, *JBBRAS*, NS, I, 1, no.	'Some Unpublished Copper-plates of the Rulers of Valabhī', by D. B. Diskalkar, *JBBRAS*, New Series, ed. by V. S. Sukhthankar, Volume I, part 1 (London, Bombay, 1925), pp. 15-63.
EI	*Epigraphia Indica* (Calcutta and Delhi).
Gadre, *JUB*, Vol. III, pt. 1, 1934, no.	'Five Vala Copper-plate Grants', ed. by A. S. Gadre, *Journal of the University of Bombay* (History, Economics and Sociology, no. 5), Volume III, part 1, 1934, pp. 74 ff.
IA	*The Indian Antiquary* (Bombay).
IHQ	*Indian Historical Quarterly* (Calcutta).
JBBRAS	*Journal of the Bombay Branch of the Royal Asiatic Society*, New Series (London, Bombay).
JOI	Journal of the Oriental Institute of M. S. University of Baroda.
JRAS, NS, Vol.	*Journal of the Royal Asiatic Society of Great Britain and Ireland*, New Series (London).

16

A preliminary report on the inscribed metal vase from the National Museum of Bangladesh

Gouriswar Bhattacharya

In 1980 when I was going to Dhaka, Bangladesh, for the first time, I met D.C. Sircar who informed me about the existence of an inscribed metal vase of *utter importance* lying in the reserve collection of the National Museum of Bangladesh (formerly Dacca Museum).[1] He asked me to procure a photo or photos of the inscribed vase from the Director of the Museum, Enamul Haque. Sircar showed me an exercise-book with black cover where he had transcribed some parts of the inscription of the vase. It may be relevant here to mention that in 1976 during a seminar held under the auspices of the Dhaka Museum Sircar went to Dhaka with Debala Mitra and B.N. Mukherjee. Sircar saw the vase but could not transcribe the whole inscription on the body of it. He also could not get the photos from the authorities to complete the transcription and publish it. This was very unfortunate, because he was the *only* competent scholar to do justice to this important inscription with his wide knowledge and a great sense of responsibility as an eminent epigraphist.[2] When I went to Dhaka to study the art objects of the Museum I was not able to see the objects of the reserve collection. The officer who was in charge of the reserve collection suddenly fell ill and I had to leave Dhaka for Calcutta. Sircar was very disappointed, as I could not bring the cherished photos for him.

In *Sotheby's sale catalogue* (London) of Thursday, 12th October, 1989, lot 38 (p. 39) an inscribed metal vase measuring 30˙4 cm. in height, was offered for sale. In the description of the catalogue it is said, 'An Eastern Indian Sanskrit Inscribed bronze vase, Pala, *c.* 10th century, 30˙4 cm. (11-15/16 in.)'; I had no information of the sale, but I got four enlarged black-and-white photos of the inscription engraved on the body of the vase from my friend, the noted art-historian, Pratapaditya Pal, Senior Curator of the Los Angeles County Museum of Art, for decipherment. Later when I saw the catalogue where a photo (Plate 16.1)[3] of the vase was given I was very agitated, as I thought that this inscribed vase must be the same one which was preserved in the reserve collection of the Dhaka Museum and must have been stolen from there, because there was a big theft at the Dhaka Museum in 1980. But my apprehension was wrong. In November, 1990, when I went to Dhaka with Debala Mitra, we hurried to the Dhaka Museum (then already National Museum of Bangladesh) to find out if the inscribed copper vase of the

Museum was in the reserve collection or not. The then Director General of the Bangladesh National Museum, Enamul Haque, was very kind to us and offered all facilities to see the reserve collection. To our great satisfaction we found the inscribed copper vase (Acc. no. 68.4) lying in the reserve collection safely.[4] I was also allowed to take photographs and to transcribe the inscription direct from the vase sitting inside the store-room. Debala Mitra took great care so that I could do my job peacefully. But as the photographs taken by me were not satisfactory enough, I requested the Museum authorities kindly to supply me with a fresh set of photographs. Unfortunately, I had to wait very long. Nevertheless, very recently I received the photographs from Debala Mitra who in her turn got them from Afroz Akmam, Keeper in charge of the Bangladesh National Museum. I am thankful to Shaikh Akram Ali, the then Director General of the Museum, who took the initiative to send the photos.

The Dhaka Museum vase (Pls. 16.2-5) is larger than the vase of the Sotheby's catalogue.[5] It measures 38 cm. in height and has a maximum circumference of about 70 cm. The *characters* of writing of the Dhaka Museum vase are also much earlier.

We were told that the vase was purchased in 1968 from a shop at Dhamrai, near Dhaka, but reported to have come from Chittagong.

There are altogether twenty-two lines of writing, two on the neck of the vase and twenty on the body of it. An ornamental line like a creeper has been drawn to demarcate the beginning and end of the writing of the text on the body of the vase (see Pl. 16.6). There are floral designs at the neck and also at the bottom. The writing in some part of the vase is difficult to read because of the rust accumulated on them. The vase needs careful cleaning. The vase is damaged at the bottom[6] (Pl. 16.2). The *characters* of writing are *Siddhamātṛikā* of about the 8th century and the language is Sanskrit written both in prose and verse (engraved on the neck). Two types of the *siddham* symbol have been used in the inscription, one on the neck of the vase which is open to the left, and the other on the body of it, which is open to the right. The symbol which is open to the right is later than the symbol which is open to the left.[7]

The *characters* of writing are earlier than those of the Khalimpur copper-plate inscription of Dharmapāla of his regnal year thirty-two (Pl. 16.7).[8]

As regards the palaeographic interest mention may be made of the letter *ma* without a loop. The letter *bha* is written in such a way that it is generally confused with *ha*. The palatal *śa*, which is a *test letter* for dating the eastern Indian inscriptions, has the early form of a loop joined to the vertical bar.[9] The consonants *pa* and *ya* are different.

Of the vowel signs, *a* in *anukūla* (line 6), *ā* in *āshāḍha* (line 2), *i* in *iyañ=cha* (line 9), *e* in *evaṁ* (line 6) and *o* in *oru*? (line 6) are met with. Of the medial vowel signs *ā* is quite interesting, because it is much shorter in this record, compare for example, *pād-āravinda-* (line 1), etc.; in the Khalimpur plate medial *ā* sign is longer.[10]

There are two types of medial *u* and *ū* signs, for example, *-śukla-* (line 2) but *Surañjita-* (line 4) etc., similarly *-Sūryya-* (line 2) but *-Anukūla-* (line 6). The medial *e* sign is put often to the left of the consonant and not on the top of it, for example, *-saptate*, *-Samvatsare* (line 2), but in *-Samvatsare* (line 13), and *ch=emau* (line 9) it is put on the top. In the Khalimpur plate this sign has always been put on the top of the consonant. But for medial *ai*, for example, *yath=aikam* (line 9), both the signs are put on top. For medial *o* the *e* sign is put on top and the *ā* sign is to the right of the consonant, see for example, *śrī-Valo* (line 4); otherwise the *e* sign is a hook at the left and *o* perpendicular to the right of the consonant, for example, *-ghosha-* (line 3). The medial *au* occurs in *-Dauvārika- Saubhāgya-* (line 5). Medial *ya* has an early form in *tasya* (line 1), but a later form in *pramukhebhyaḥ* (line 6). In the middle of a sentence *anusvāra* has always been put with a dot on top of the consonant, but at the end of a sentence it is put as half *m*, compare for example, *-viṁśati-* (line 19) but *bhavatām* (line 5). Compare also the *anusvāra* and half *m* signs (line 25) in the Khalimpur copper plate. The half *m* sign in *Trayodaśyām* (line 2) is different from the half *m* sign in *bhavatām* (line 5). The half *m* occurs as *anusvāra* in *evaṁ* (line 6).

As regards orthographic peculiarity *ba* has been replaced everywhere by *va*. Consonants have been reduplicated with the subscript *r*, for example, *-rgga-* (line 2), *-rtti-* (line 1), *-rmma-* (line 1), *-rvva-* (line 1 on the neck of the vase) etc.

This is a Buddhist record, probably from Chittagong (ancient Harikela or Harikelā), Bangladesh. The ruler mentioned in this important record is Devātideva-[11] bhaṭṭāraka (line 1, see Pl. 16.8) who was a pious Buddhist. Quite important is the fact that he belonged to the Non-Aryan *Khasha* tribe who had embraced Buddhism. The Chittagong area over which he had ruled is described as *Khasha-maka*[12] and his officers are described as *aśesha-Khasha-mak-ādhikaraṇa* (line 4). This is perhaps the earliest epigraphic reference to the *Khashas* from eastern India. King Devātideva ruled over the Harikela kingdom[13] (line 15). The earliest Pāla record which refers to the *Khaśa* tribe is the undated Nalanda copper-plate inscription of Dharmapāla, along with the *Gauḍa*, *Mālava*, *Kulika* and *Hūṇa* tribes.[14] Similarly, in the Nalanda copper-plate inscription of Devapāla, regnal year 35, the *Khaśas* are mentioned with other tribes who were perhaps in the royal service together with the royal officials, royal servants and others. These tribes were the *Gauḍas*, *Mālavas*, *Kulikas*, *Karṇāṭas* and the *Hūṇas*.[15] While editing the Bodhgaya stone slab inscription of Buddhasena (now in the Museum of Indian Art Berlin, Museum No. MIK I–1141) D.C. Sircar commented (p. 50), 'King Aśokavalla (sometimes called Aśokacalla probably wrongly) of the Khasa country in the Sapādalakṣa mountain is mentioned in three Bodhgayā inscriptions . . .', and (p. 51), 'The Kāma country to which Puruṣottama originally belonged may be identified with Kumaun since his overlord Aśokavalla, mentioned as ruler of the Khasa country in the

Sapādalakṣa mountain in the Bodhgayā inscriptions, apparently ruled over the Kumaun-Garhwal region as is indicated by an inscription from Gopeśvar in Garhwal.'[16] The *Bhāgavata-purāṇa*, 2.4.18 refers to the Khasas along with the Kirātas, Hūṇas, Andhras, Pulindas, Pukkasas, Ābhīras, Suhmas and Yavanas who are called *pāpas*, sinners, and who were purified by embracing Vaishṇavism.[17] Our ruler, Devātideva was a Khasha king of the Chittagong area (ancient Harikela) who was a Buddhist and not a Vaishṇava.[18]

The second important point of the record is that it is dated. The date is given in the lines 1-2 of the inscription as follows: *Śrīmad-Devātideva-bhaṭṭārakasya pravard-dhamāna-vijaya-rājye Sapta-saptate Mārggaśīrsha-Samvatsare / Āshāḍha-Śukla-Trayodaśyām*, i.e. in the prosperous regnal year 77 (correctly, *Sapta-saptatau*) of the illustrious lord Devātideva, of the year (called) Mārgaśīrsha, on the 13th day of the bright half of the month of Āshāḍha. Unfortunately, the week-day is not mentioned. The regnal year 77 refers perhaps to the Burmese Era starting from A.D. 638 and hence our record should be dated as A.D. 715. This era was known as *Chūḷasakarāja*, and was a Twelve Year Cycle starting with Mārgaśīrsha. G.H. Luce comments (p. 330), 'The year-number in the *sakanac* is usually followed, both in Old Mon and Old Burmese inscriptions, by the Year-name (*saṁvatsara*) in the Twelve Year Cycle of Jupiter. . . . But Sanskrit was originally content with the duodecimal cycle, for which it employes the same names as those of the Twelve Months. Old Mon, and here also Old Burmese, follow the Sanskrit: so it is not necessary to repeat the names.'[19] In four more cases this Twelve Year Cycle date is mentioned: (1) *Māgha-Samvatsare Pushya-Kṛishṇa-Trayodaśyām* (line 11), i.e. on the thirteenth day of the dark half of the month of Pushya (or Pausha) in the Māgha Saṁvatsara; (2) *Māgha-Samvatsare Māgha-Śukla-Saptamyām* (line 13), i.e. on the seventh day of the bright half of the month of Māgha in the Māgha Saṁvatsara; (3) *Āśvina-Samvatsare Pushya-Kṛishṇa-Trayodaśyām* (line 15), i.e. on the thirteenth day of the dark half of the month of Pushya (or Pausha) in the Āśvina Saṁvatsara; and (4) *Māgha-Samvatsare Āshāḍha-Śukl-Aikādaśyām* (line 17), i.e. of the eleventh day of the bright half of the month of Āshaḍha in the Māgha Saṁvatsara. All these dates are connected with different transactions of granted land. Nevertheless, all these dates fall in the Twelve Year Cycle starting with *Mārgaśīrsha*, and each year in its turn started with the month, *Mārgaśīrsha*, i.e. *Agrahāyaṇa.*[20]

The object of the grant is to record the gift of several *Pāṭakas* of land by the Chief Administrator (*Mahāpradhāna*) and Chief Minister (*Mantrimukhya*),[21] the illustrious Nayaparākrama-gomin.[22] The various royal officials had been instructed (*ādishṭāḥ*) by the honourable (*mānanīya*) Chief Administrator (*Mahāpradhāna*), the chamberlain (*Dauvārika*) Saubhāgyakīrti that the donor, Nayaparākrama-gomin had purchased at a good price (*su-krayeṇa krītvā*, line 6) thirty-three *Pāṭakas* of land in the presence of the royal official and donated in honour of the great lord, the illustrious Devātideva, to the Haritaka-Dharmasabha-vihāra for the enjoyment of the multitude of noble Buddhist monks who were engaged in the worship of the Buddha and the Dharma and for the repairing and renovation work of the monastery. Of the donated land eleven *Pāṭakas* are called *Veda-go(śo?)riga-javi-kshetra* belonging to Mokināda-*khaṇḍa*. These *Pāṭakas* of land were purchased from Sajja, Oru, Sahi, Śudi and Vi(Bi)bhra. The other twenty-two *Pāṭakas* of land belonged to Bhaṭṭa-Mitra, Ve(Be)mi, Anukūla, Daddi-Śūrika and others.

A second donation was made by Pṛithudāma, Jishṇudāma, [Śambhu]dāma, and Gauridāma for the religious merit of all which was treated as *sarvātibhoga-bhogya.*

A reference is made to the *Pañchamaṭhīya Brāhmaṇas* in connection with a gift in line 10.

On the thirteenth day of the dark half of the month of Pushya (or Pausha) in the *Māgha Saṁvatsara* a land transaction was made of sixty *Droṇavāpas* of land from the share of the goldsmiths (*suvarṇakāra*), Kulachandra and Ratnachandra, and in this connection the inhabitants of the Dharmasabha monastery, the abbot (*Āchārya*) of the congregation of the noble Buddhist monks, Śāntibhadra, and the *Karaṇi*, Hastirudra are mentioned.

On the seventh day of the bright half of the month of Māgha of the *Māgha Saṁvatsara* another land transaction was made by the *Karaṇi* Hastirudra, Vijayin and others, attached to the service of Āchārya Śāntibhadra, Devasiṁha, Sucharita and Somaprabha, of sixty *Droṇavāpas* (bought) from the residents of the Chandrabhaṭṭārikā-grāma situated in the *Khasha-maka* belonging to Harikelā. The land of sixty *Droṇavāpas* has been described as *Khila-kshetra.*[23]

Another land transaction was made on the thirteenth day of the dark half of the month of *Pushya* (or Pausha) of the *Āśvina Saṁvatsara* by Dharmadatta and his son, Bhadra(datta). In the given boundary of the land (*kshetra*) a *Mahāyāna-vihāra-kshetra* is mentioned as its eastern boundary. In this case also *Harikelā* is mentioned.

Finally on the eleventh day of the bright half of the month of Āshāḍha in the *Māgha Saṁvatsara* a land transaction of twenty-eight *Pāṭakas* of land was made. Some portion of the land was bought with fifty-eight *Taṇḍaka.*[24] A certain *Mahāvārika*-Sahadeva[25] is mentioned in this connection.

Quite interesting is the list of royal officers of the ruler, Devātideva, given in the inscription. These are: (1) *Kumārāmātya* Sūryabhadra; (2) *Mahābalādhikṛita* Jishṇudāma, Śambhudāma, Sāgaradeva, Dadavela;[26] (3) *Mahāmahattara Bhaṭṭa*-Rudraghosha; (4) *Dharmapāṭha* Rudrapāla, *Bhaṭṭa*-Bhadrapāla, *Bhaṭṭa*-Bhadradeva, *Bhaṭṭa*-Janārdanasoma; (5) *Sāndhivigrahika* Dyutidatta, *Jyeshṭha*-Śivadāsa, Jīvadatta, *Jyeshṭha*-Bhogadeva; (6) *Mudrapāla* Prītidatta; (7) *Kāyastha* Prītidāsa, Ratidatta, Surañjita; (8) *Mahāvārika* Valosami[27] and Dadda.[28] Unfortunately, no engraver of the inscription is mentioned.

With the inscription of this vase we have to compare the inscription of the other vase from the Sotheby's sale catalogue mentioned earlier in this article (Pl. 16.1).[29] This is a later inscribed object belonging to *c.* 10th century. The ruler mentioned in this record is the *Rājādhirāja* Attākaradeva (Pl. 16.9).[30] However, no genealogy of this ruler is given in the record, but that he was a ruler of the Chittagong region is certain from the reference to the Harikelā-*maṇḍala*, of which Vardhamānapura was his capital. This Vardhamānapura has been identified with the present Bara-Uthan village of the Patiya Upa-zila in Chittagong by Kanungo.[31] King Attākaradeva was also called *samara-mṛigāṅka*, i.e. 'a moon in the battle-field'.[32] No date has been given in the record of Attākaradeva. But it appears to us that he might have been a subordinate to the Chandra ruler, Trailokyachandra (*c.* A.D. 905-25), the father of Śrīchandra (*c.* A.D. 925-75), and who is described as, 'the support of the royal family of Harikela.'[33] The object of the inscription on the vase is to record the construction and donation of a cell (*maṭhikā*) by the great chamberlain (*Mahāpratīhāra*) Sahadeva who was a feudatory (*prāpta-pañcha-mahāśabda*) of the king, the son of Kalyāṇadeva and Varadevī, and the grandson of Buddhadeva, in honour of *Munīndra-bhaṭṭāraka* (i.e. the Buddha) for the attainment of perfect enlightenment (*samyak-sambodhi*) and for the increase of religious merit of his parents, of himself and of all sentient beings.

Finally we have to compare with both these inscriptions the incomplete copper-plate inscription of the ruler Kāntideva.[34] The plate was discovered some time about 1920 in an old temple at Chittagong, locally known as Bara-ākharā. The *characters* of writing of this plate are *Siddhamātṛikā* of *c.* 9th century and the language is Sanskrit (Pl. 16.10).[35] The inscription belongs to King Kāntideva who is described as *Parama-saugata*, *Parameśvara* and *Mahārājādhirāja*, the son of Dhanadatta and the grandson of Bhadradatta, but both of them were not kings. This was also a Buddhist family. In this record both Vardhamānapura and Harikelā-*maṇḍala* are mentioned. Sircar dates Kāntideva *c.* 800-825 and places him just after Bhavadeva (*c.* 775-800) of the ruling family from Devaparvata. Now we have to place the ruler Devātideva of the Bangladesh National Museum Vase inscription also before Kāntideva. According to our palaeographical study of the three documents from Chittagong we would like to make the following chronological arrangement:

1. Devātideva, A.D. 715-.
2. Kāntideva, *c.* A.D. 800-825.
3. Attākaradeva *c.* 10th century.

Text[36]

(a) Around the neck of the vase: (Pls. 16.2-5 and 16.8)

Line 1. *Siddham*[37] *svasti* [|*] *Jayati jita-sarvva-māras=sarvvajñas=sarvva-dharmma-va*[*śa*]*varttī* |

2. *sar[vva]-gata-dharmma-mūrttis=sarvva-guṇ-ālaṅkṛitas=Sugataḥ* ||[38]

(b) On the body of the vase;[39] (Pls. 16.2-6 and 16.8)

Line 1. *Siddham*[40] [|*] *Tasya bhagavataḥ pād-āravinda-vandan-opachita-kuśala-mūlasya śrīmad-Devātideva-bhaṭṭārakasya pravarddhamāna-vijaya-rājye Sapta-*

2. *saptate*[41] *Mārggaśīrsha-Samvatsare* /[42] *Āshāḍha-Śukla-Trayodaśyām*[43] *Kumārāmātya-śrī-Sūryyabhadra-Mahāvalādhikṛita*[44]*-śrī-Jishṇudāma-śrī-Śambhudāma-śrī-Sāgara-deva-śrī-Dadavela-*[45]

3. *Mahāmahattara-Bhaṭṭa-Rudraghosha* /[42] *- Dharmmapāṭha-Rudrapāla Bhaṭṭa-Bhadrapāla-Bhaṭṭa-Bhadradeva-Bhaṭṭa-Janārddanasoma-Sāndhivigrahika-Dyutidatta-Jyeshṭha-Śivadāsa-Jīvadatta-Jyeshṭha-Bhogadeva-Mudrapāla-Prītida-*

4. *tta-Kāyastha-Prītidāsa-Ratidatta-Surañjita-Mahāvārika-śrī-Valosami*[46]*-Mahāvārika-Da[dda]-pramukham*[47]*=aśesha-Khasha-makādhikaraṇān Khasha-mak[e] sarvvān=vi*[48]*shayino yathākāl-opacharat-sarvva-rājakarmmiṇaś=cha vo*[49]*dhayati*[50]

5. *viditam=ida[m=bha]vatu bhavatān*[51] *mahanīya-Mahāpradhāna-Dauvārika-Saubhāgyakīrttinā vayam=ādishṭāḥ/*[42] *Mahāpradhāna-Mantrimukhya-śrī-Nayaparākrama-gomin=ātra Mobhināda-khaṇḍa-samvaddha-*[52] *Veda-go(śo?)ṅga-javī-kshetram=ekādaśa-Pāṭakān/ tad-varggīya-sa-*

6. *ñja-Or[u]-Ehiśūri-Ṭhihu-*[53] *pramukhebhyaḥ/*[42] *Pitisoṇḍasy=aikādaś-ā-...bhāgāt / tad-varggilaka-[Bhaṭṭa]-Mitra* /-[42] *Vesi* /-[54] *Anukūla* /-[42] *Daddiśūrik-ādibhyaḥ/*[42] *evaṁ dvāviṅśati pāṭakān* /[42] *sarvveshām=asmākaṁ samaksham=eva su-krayeṇa krītvā paramabhaṭṭāraka-śrīmad-Devātideva-*

7. *pādān=uddiśya [H]aritaka-dharmma-sabha-vihāre bhagavad-Buddha-dharmma-purassara- ... ṇat-āryya-bhikshu-saṅghasya puṇy-opabhogāya vihārasya cha dījīrṇṇa-[śī]rṇṇa-sphuṭita-pratisaṁskaraṇāya niryyātitān/ tathā śrī-Pṛithudāma-śrī-Jishṇudāma-...dāma-Gauridāmabhiś=cha tatr=aiva*

8. *sthānayoḥ puṇy...rvveṇa pañchaviṁśati-pāṭakān=ashmākaṁ sarvveshāṁ puṇy-ābhivṛiddhaye sarvv-ātibhoga-bhogyān=kurut=eti* /[50] *atas=ta... mantri-bhaṭṭāraka-pādānām=apy=asmad-vishaya-jñāna-sukha-paripālan-āgun-ā...ṇ=e-*

9. *tya yath=aikam=api paitrikān paribhogyam=idaṁ kshetraṁ kṛitam /iyañ=cha naḥ sthitir=yyāvad=ayaṁ Bhadrakalpo yāvat=ā*[55]*-*

parvvata-saṁgatā pṛithiv=īya[ṁ] yāvach=ch=emau sūryyā-chandramasau tapataḥ // tāva...sarvva-deva-manushya...

10. *yath=ābhavat=teshāṁ bhāvi...sākshiṇaḥ kṛitvā pañcha-maṭhīya-vrā[56]hmaṇānāṁ dattaḥ...dāpitaḥ tad=bhavadbhir=api sva-kalyāṇ-ārthaṁ sthiti...anupālaniy=eti / asy=ā...pūrvveṇa Nara-*
11. *nadī dakshiṇena /[42]...paśchimena...ch=eti /[50] Māgha-Samvatsare Pushya-Kṛishṇa-Trayodaśyāṁ Dharmmasabha-vihāra-nivāsibhir=āryya-[bhi]kshu-saṁgh=āchāryya-Śāntibhadra-Surakshita... prabha-pādamūla-Ka-*
12. *raṇi-Hastirudra-Vi...yi-prabhṛitibhiḥ Harikelāyām=ubhaya-karaṇa-sama ...grāma-pūrvveṇa /[42] ashṭā...pra...rgga-Suvarṇṇakāra-Kulachandra-Ratna-chandrayoḥ sva-bhāgāt=sha[57]shṭi Droṇavāpāḥ pañchāśad=uttarataḥ...vikrayeṇa kṛitvā*
13. *sarvvātibhogaś=ch=eti // Māgha-Samvatsare Māgha-Śukla-Saptamyāṁ Dharmmasabha-vihāra-nivāsibhir=āryya-bhikshu-saṁgh-āchāryya-Śāntibhadra...Devasiṁha-Sucharita-Somaprabha-pādamūla-Karaṇi-Hasti-rudra-Vijayi-prabhṛitibhiḥ Harikelāyam=ubhaya-Karaṇa-samaksh[e]*
14. *Khasha-maka-Chandra-bhaṭṭā[ri]kā-nivāsināṁ...ttar-odaya...Su...Śarabhadatta-pramukhebhyaḥ Chandrabhaṭṭārikā-grāme khila-kshetra-shashṭi-Droṇavāpāḥ viṁśatty-uttara-Taṇḍaka-śatena...sarvv-āti-bhāgasya kṛita iti //*
15. *Āśvina-Samvatsare Pushya-Kṛishṇa-Trayodaśyāṁ Dharmmasabha-vihāra-nivāsina=āryya...sa-pādamūlas=ta eva Harikelāyam=ubhaya-Karaṇa-samakshe Khasha-maka-salaṅga-khaṇḍa-...gre pa-Dharmmadatta-tat-putra-Bhadra-dattayoḥ...śāt=triṁśad=Droṇa-vāpān=avakrayeṇa*
16. *...sa-śirā-kshetra-paribhāgasya cha sīmā-liṅgāni pa...uttareṇa śrī-Pūraṇakshetra[ṁ] dakshiṇena Galadūraṁ pūrvveṇa Mahāyāna-vihāra-kshetram etat-kshetrasya cha mūlyaṁ pañchāśad-uttara-Taṇḍaka-...tala-*
17. *...dadaty=atra Ya[śa]deva...t-triṁśa-Droṇāvāpāḥ/ tābhyām=eva kā... ya dattaḥ vihāraś=cha Dharmmasabha-vihāra-samvan[dha]ḥ[58] kṛitaḥ sarvvātibhogaś=ch=eti // Māgha-Samvatsare /[42] Āshāḍha-śukl-Aikādaśyāṁ Dharmmasabha-*
18. *vihāra-nivāsin=āryya-saṁghena sa-pāda-mūlikena Harikelāyām... samakshe-Khasha-maka-si[devā]la-subha-takīya-padyūra-Mahāvārika-Sahadeva-Kali-śuri-Kendu-śūri-Amṛitta-lakshaṇi-pasivadoke?—*
19. *yam-ādibhyaḥ sakāśā[t=Kāla]srakaṭake ashṭāviṁśati-Droṇa[vāpā]...*

pañcha-daśa-Droṇavāpāḥ/ ity=evaṁ Droṇa-tray-ādhika-Pāṭako='shṭa-pañchāśat=Taṇḍakaiḥ su-krītaḥ sarvvātibhogaś=cha kṛita

20. *iti // evaṁ sarvveṇa Pāṭaka*[59] *30 Dro[ṇa 20]*[60]

Notes and references

1. Officially known as Bangladesh National Museum.
2. That's why I am feeling very embarrassed to write on the same inscribed vase.
3. Photo from the Sotheby's catalogue.
4. In this connection we like to thank an employee of the Bangladesh National Museum, Swapan Kumar Biswas for his co-operation and help.
5. The Sotheby's vase measures 30·4 cm. in height as mentioned earlier.
6. Curiously enough, the Sotheby's vase is hollow at the bottom. Whether it was made later or not is difficult to say now. From the Bangladesh National Museum vase a portion at the bottom was cut out perhaps to test the metal of it.
7. Compare, for example, the Nalanda Stone Inscription of the time of Yaśovarman (*c.* 725-53 A.D.) for the *siddham* symbol open to the left, *Ep. Ind.*, Vol. XX, pp. 43f.; and the Gwalior Stone Inscription of Bhoja I (*c.* 836-85 A.D.) for the *siddham* symbol open to the right, *Ep. Ind.*, Vol. XVIII, pp. 107ff.
8. See *Ep. Ind.*, Vol. IV, pp. 243ff. Photo of the Plate from *JASB*, Vol. LXIII, i, pp. 39ff. See also *Select Inscriptions*, Vol. II (Delhi-Varanasi-Patna, 1983), pp. 63-70.
9. On the sign of the palatal *śa* in eastern Indian records, see the remark made by Sircar, *JAS*, Letters, Vol. XVII-2, 1951, pp. 83-94.
10. See, for example, *sarvvajñatāṁ* (line 1), *vajrāsa-* (line 1) etc. in (Pl. 16.7) of this article.
11. In Los Angeles Pratapaditya Pal suggested to me that this is perhaps not a proper name but an epithet of the king, like *Devānaṁpiya Piyadasi* of Aśoka or *Vikramaśīla* of Dharmapāla.
12. I do not know the meaning of the term, *maka*, which means perhaps a dominion.
13. Following the Sanskrit Lexicographers D.C. Sircar (*JAS, Letters*, XVII-2, 1951, p. 89), R. C. Majumdar (*Ep. Ind.*, XXVI, 1952, reprinted 1985, p. 313) and Radhagovinda Basak (*Ep. Ind.*, XXVIII, 1958, p. 54) identified Harikela, Harikelā or Harikeli with Śrīhaṭṭa or Sylhet. But this identification is wrong. B. N. Mukherjee (*Bangladesh Lalit Kalā*, 1-2 1975, pp. 115-119) and Debala Mitra (*JAS*, 18, 1-4, 1977, pp. 73-74) have shown that the kingdom of Harikela included the present-day Chittagong region with some adjacent area.
14. See *Ep. Ind.*, XXIII, pp. 290 ff.
15. See D.C. Sircar, *Select Inscriptions*, II, 1983, p. 75, lines 31-32.
16. See Sircar, *JAIH*, VI, 1-2 (1972-73), pp. 50-51; also Debala Mitra, *Nalinīkānta Śatavārṣikī: Dr. N.K. Bhattasali Centenary Volume (1888-1988)*, (Delhi, 1989), p. 187, note 6.
17. Quoted by J.N. Banerjea, *Pañchopāsanā* (in Bengali), (Calcutta, 1960), p. 332.
18. This is perhaps the earliest reference of a *Khasha* ruler from Bengal. King Devātideva is much earlier to King Aśokavalla of the Khasa country in the Sapādalaksha mountain.
19. See Gordon H. Luce, *Old Burma—Early Pagán*, Vol. two, (New York, 1970), p. 330. This era was suggested to me by Debala Mitra, while I was studying the inscribed vase in the Bangladesh National Museum. For reference, see her *Bronzes from Bangladesh* (Delhi, 1982), p. 35.
20. This was the name of the first *Saṁvatsara* of the Twelve Year Cycle as well as the first month of a year.

21. The official designation *Mantrimukhya* is not to be found in Sircar, *Indian Epigraphical Glossary* (Delhi-Varanasi-Patna, 1966).
22. The surname *gomin* reminds one of the famous grammarian, Chandragomin from Bengal, see Niharranjan Ray, *Bāṅgālīr Itihās, ādi parva, dvitīya khaṇḍa* (in Bengali), (Calcutta, 1980), pp. 725-26.
23. *Khila-kshetra* is a fallow land, see Sircar, *op. cit.*, p. 157. *Droṇavāpa* is 'an area of land requiring one *droṇa* measure of seed grains to be sown'; a land measure which was not the same in different ages and localities. Sircar, *op. cit.*, p. 101.
24. The term *Taṇḍaka* designating a coin is not to be found in any other record, and has not been included in Sircar, *op. cit.* The expression no doubt occurs in M. Monier-Williams' *A Sanskṛit-English Dictionary* but not in the sense of a coin. It is difficult to say what relation it had with *Purāṇa*, *Kapardaka* or *Paṇa.*
25. The designation *Mahāvārika* does not occur in Sircar, *op. cit.* M. Monier-Williams does not give in his *Sanskṛit English Dictionary.* Nevertheless the term *vārika* in the sense of a monastery official occurs in Franklin Edgerton's *Buddhist Hybrid Sanskrit Grammar and Dictionary*, Vol. II, Reprint (Delhi, 1972), p. 477.
26. Perhaps Dadabela.
27. Perhaps Balasami.
28. For the official designations, *Kumārāmātya* etc. one should consult Sircar, *Indian Epigraphical Glossary.* The official designation, *Mudrapāla*, however, is not given by Sircar. Mentioning of so many royal officials in this record reminds one of the Kalaikuri-Sultanpur Copper-plate Inscription of the Gupta Year 120, see Sircar, *Select Inscriptions*, Vol. I (second edition, Calcutta, 1965), pp. 352-55.
29. My article on this inscribed vase ('An Inscribed Metal Vase Most Probably from Chittagong, Bangladesh') is published in *South Asian Archaeology 1991*, edited by A. J. Gail and G. J. R. Mevissen, (Stuttgart, 1993), pp. 323-38.
30. During my lecture at the University of Calcutta (19.3.1992), Department of Archaeology, on this inscription Prof. B. N. Mukherjee commented that the name reads *Antākaradeva* and referred to a seal mentioning Antākaradeva of the Ākara dynasty with two of his predecessors hailing from East Bengal. Unfortunately, the name cannot be read as *Antākaradeva* in this inscription, see (Pl. 16.9).
31. See Suniti Bhushan Kanungo, 'Prāchīn Harikela Rājyer Abasthān', in *Itihās Samiti Patrikā* (Bengali), B. S. 1385-86, pp. 7-8, quoted by Swapan Bikash Bhattacharjee in *Nalinīkānta Śatavārṣikī: Dr. N. K. Bhattasali Centenary Volume (1888-1988)*, (Delhi, 1989), pp. 119-22.
32. The Sanskrit word, *mṛigāṅka* means 'deer-marked', i.e. 'moon', but this is also the name of a sword (in *Kathāsaritsāgara*), see M. Monier-Williams, *A Sanskṛit-English Dictionary* (Oxford, 1956-60), p. 829.
33. See Nanigopal Majumdar, ed., *Inscriptions of Bengal*, Vol. III (Rajshahi, 1929), p. 7.
34. See R. C. Majumdar, 'Chittagong Copper-plate of Kantideva', *Ep. Ind.*, Vol. XXVI (1941-42), published in 1952, reprinted in 1985, (New Delhi), pp. 313-18.
35. Plate from the *Ep. Ind.*, Vol. XXVI.
36. Transcribed from the original vase and from the photos kindly sent by the authorities of the Bangladesh National Museum.
37. Expressed by a symbol open to the left, which is earlier.
38. Verse, metre: *Āryā.* This verse actually is the opening of the inscription. There is an ornamental design around the neck of the vase.
39. The text on the body is a continuation from the text written around the neck of the vase. A creeper-like ornamental design has been drawn as a dividing line for the text of the inscription.

40. Expressed by a symbol open to the right. The two types of the *siddham* symbol indicates the transition from the earlier to the later type.
41. Correctly *Sapta- saptatau.*
42. Punctuation mark unnecessary.
43. Half *m* has been used instead of *anusvāra.*
44. Read *Mahābalādhikṛita-.*
45. Perhaps *Dadabela-.*
46. Perhaps *Balasami-*, but still it is a strange name.
47. Correctly *-pramukhān=aśesha-.*
48. Read *sarvvān vishayino.*
49. Read *bodhayati.* It is not clear who is the agent of this verb.
50. There is an ornamental punctuation mark.
51. Correctly *idaṁ bhavatu bhavatām.*
52. Correctly *sambaddha-.*
53. Reading doubtful.
54. Read *Bemi-.*
55. Correctly *yāvad=ā-.*
56. Read *brā-.*
57. Correctly *-bhāgāt shashṭi.*
58. Correctly *-sambandhaḥ.*
59. Correctly *Pāṭakāḥ.*
60. Correctly *Droṇavāpāḥ 20.* The writing is quite illegible.

17

Epigraphical and literary references to Buddhism in Kerala

S. Subramonia Iyer

There are very few epigraphical and literary references to the existence of Buddhism in Kerala. The Paliyam plates of the Āy chief Vikramāditya Varaguṇa,[1] which on palaeographical grounds can be assigned to about the ninth century A.D., is in fact the only epigraphical reference on Buddhism so far found amongst the inscriptions discovered in Kerala. The charter is important in more than one respect. The Sanskrit portion of the charter is written in north Indian characters as against the Grantha characters generally employed in the charters of this period from the south. Secondly, in the present charter, the king's age is mentioned as against the usual practice of mentioning the regnal year of the ruling king.

The charter begins with three invocatory verses which are all Buddhist in nature. The first one is in praise of the son of Śuddhodana (i.e. Buddha):

> *Yaḥ kalyāṇa-mayaḥ svayaṁ vitanute yaḥ kalpakasya sthitiṁ*
> *yasmād=abhyuditas=tamāṁsi harate sad=dharma-dharma-dyutiḥ* |
> *yat=pād=āśrayiṇo bhavanti sukhinas=sarve gaṇāḥ prāṇināṁ*
> *dheyān=Merur=iv=āparas=tri-jagatīṁ sarvaṁ sa Śauddhodaniḥ* ||

'May the son of Śuddhodana who is full of virtue, who manifests the nature of the sacred precepts, who, by the effulgence of his righteous conduct, dispels all the darkness, whose feet by seeking refuge under which all kinds of beings become happy and who like another Meru mountain holds together the three worlds.'

The second verse eulogises the Buddhist Dharma and Saṅgha.

> *Ātm-ākāra-grahaṇa-vimukhāv=āhṛit-āpāṅga-līlau*
> *prāptau nityaṁ śruti-mati-tṛishān=eka-rūp-āvabodhau* |
> *devyā bhūmer=nikhila-kumati-dhvāntarodh-ānvitāyāḥ*
> *netrāy=etāṁ jita-kuvalayau dharma-saṁghau chirāya* ||

'May Dharma and Saṅgha, which are like the two eyes of goddess Earth that are endowed with the bank to check the darkness like precepts of bad people, which have won over the blue lotuses (by their beauty), whose myriad glances are indifferent to egoism, who are thirsty in drinking daily the wisdom from the scriptures and which comprehend the manifold forms, last for ever.'

The third verse is in praise of Avalokita (i.e. Avalokiteśvara).

Nishyandamāna-karuṇ-āmṛita-vāripūra-
nirddhauta-nirmmalatar=eva virājamānaḥ |
Lakshīñ=chirāya bhajatām=Avalokitasya
diśyāt=tu naḥ śiśira-dīdhiti-tulya-kāntiḥ ||

'May the radiance of Avalokita, which equals the splendour of the moon and which is resplendent as if well washed and purified by the flow of the flood of nectar of mercy, grant prosperity to us who are his worshippers.'

The charter then proceeds to describe the Yādava-*vaṁśa* to which the donor king belongs. It then records that on a Thursday in the Mṛigaśiras *nakshatra* in the month of Pausha when the sun was in the Makara-*rāśi*, King Vikramāditya Varaguṇa granted land to the *bhaṭṭāraka* of Tirumūlapāda. In the date portion, there is the expression *pañcha-trik-āyuḥ*. T.A. Gopinatha Rao, who edited this inscription, takes it to mean that the king was fifteen years old at the time of the grant.[2] Elamkulam Kunjan Pillai[3] doubts Gopinatha Rao's reading. A careful examination of the plates of the charter shows that Rao's reading is correct. As already mentioned earlier, the practice of mentioning the age of the donor king in a charter is nowhere found except in the present charter. But if Gopinatha Rao's interpretation is accepted, one will be confronted with the problem whether a minor king can and will independently issue a grant. It is possible to interpret the expression *pañcha-trik-āyuḥ* in a different way. If the word is taken as a *bahuvrīhi* compound, it can be split as *pañcha cha trīṇi cha yasmin iti* and following the rule *aṅkānāṁ vāmato gatiḥ*, it can mean that the king was thirty-five years old. This, if accepted, can set at rest at least some of the controversies that have risen from the earlier interpretation of the expression.

The charter then proceeds to state that the boundaries of the land granted have been mentioned in the Tamil portion *dramiḍa-vachana*, which unfortunately is available partly due to the loss of a plate. It also states that the granted land has been placed under the charge of Vīra-Kota who was probably the governor or chief of that area where the land granted was situated. The Sanskrit portion of the charter concludes with three benedictory verses exhorting the future generations to zealously protect the grant. At the end of the Sanskrit portion the details of the *tithi* i.e. *śu.* 12 are mentioned.

The location of the *vihāra* of Śrīmūlavāsa has been a subject of controversy among scholars. An inscription discovered in the Gandhāra region in Afghanistan attests to the fact that it was situated in the south (*dakshiṇāpatha*).[4] The fact that the above-mentioned *vihāra* continued to exist even up to the eleventh century A.D. and was often frequented by kings till it was finally destroyed by sea is attested by a *kāvya* named *Mūshaka-vaṁśa* assignable to the eleventh century A.D. The following verse[5] shows how an effort was made to save the *vihāra* at Śrīmūlavāsa by throwing large blocks of stone on the sea-shore.

Prathitam=iva Jinasya śrī-niketaṁ kadāchin=mushita-
jana-viptter=ālayaṁ Mūlavāsam |
pṛithu-chaṭula-turaṅga-kshubdha-velā-taṭāntaḥ
kabaliyutum=udanvān=uddhataṁ vyājajṛimbhe ||

It is known from the same work that this incident took place during the reign of King Vikramarāma. There is a further reference in the *Mūshaka-vaṁśa* to the visit to this *vihāra* of another king by name Vallabha after his victorious campaign in the south against the Choḷas.[6] Probably the *vihāra* could not be saved for long from the fury of the sea and it was submerged by the sea by the twelfth century A.D., since there is no other later literary or epigraphical reference to the existence of this *vihāra*.

Based on the scanty details furnished by the *Mūshaka-vaṁśa*, scholars believe that this once-famous *vihāra* was situated on the sea-coast of Kerala. Elamkulam Kunjan Pillai places it near Trikkunnapuzha (District Alleppey) where a locality is even now known by the same name.[7] This seems to be more probable in view of the fact that in the districts adjoining Alleppey like Kottayam and Quilon some early stone images of Buddha have been found.[8] Further, in the region mentioned above, there are a number of places having their name beginning and ending in *paḷḷi* like Paḷḷikkal, Paḷḷippuraṁ, Karuṇāgapaḷḷi etc., which may probably suggest that once upon a time Buddhist or Jaina monasteries flourished in those places.[9]

Amongst the important Sanskrit works that throw some light on the state of Buddhism in the south in general and in Kerala in particular is the farce *Bhagavadajjukīya*, the date of composition of which is generally assigned to about the sixth-seventh centuries A.D. This work finds mention in the Mamandur inscription and it is believed that this served as a model for the Pallava king Mahendravikramavarman to compose his work *Mattavilāsaprahasana*. In the said *prahasana*, there are several instances where the decadent Buddhist religious practices and personages figure as the target of trenchant criticism in the hands of the dramatist. At the beginning of the farce, there is an interesting dialogue between the Hindu mendicant and his disciple. Śāṇḍilya says: *Prathamam=ev=āhaṁ karaṭaka-śesha-samṛiddhe nirakshara-prakshipta-jihve kaṇḍa-prasakta-yajñ=opavīte brāhmaṇya-mātra-paritushṭe kule prasūtaḥ* | *Tato dvitīyam=asmākaṁ gehe aśana-nāsena bhubhukshitaḥ prātar=aśana-lābhena Śākya- śramaṇakaṁ pravrājito=smi* | *Tatas=tasmin dāsyāḥ putrāṇām=eka-kāla-bhaktatvena bhubhukshitaḥ tam=api visṛijya chīvaraṁ chchhitvā pātraṁ pratolya chhatramātraṁ gṛihītvā nirgato='smi* || *Tatas=tṛitīyam=asya dushṭ=āchāryasya bhāṇḍāgāra-gardabhaḥ saṁvṛittaḥ* |[10]

One can find here how illiterate people joined Buddhism driven by sheer poverty, for once they joined that religion, they were assured of regular food. Once food was denied to them they left Buddhism lock, stock and barrel. Again, in the same farce when the spirit of the courtesan is wrongly put in the body of the Hindu mendicant by the emissary of the god of Death, there occurs the piquant situation in which the Hindu mendicant getting up starts talking to Śāṇḍilya like a courtesan much to the embarassment and wonder of the latter. Through this, the dramatist portrays the decadent state in which the *bhikshus* belonging to the Buddhist order had fallen. Thus one can find that by about the seventh-eighth centuries A.D., Buddhism in the south was not in an affluent state, though it did not completely die in Kerala during that period as evidenced by the continued existence of Śrīmūlavāsa-vihāra at least up to the end of the eleventh century A.D.

Notes and references

1. T.A. Gopinatha Rao, 'Paliyam Plates of Varaguna of the Vrishnikula', *Travancore Archaeological Series* (hereafter *T.A.S.*), Vol. I (Madras 1910-13), p. 187. Rao equates Tirumūlavāda with Śrīmūlavāsa, cf. *T.A.S.*, Vol. II, pt. II, p. 116.
2. *T.A.S.*, Vol. I, p. 188.
3. *Chila Kerala Charitra Prasngal*, N.B.S., (Kottayam, 1963), p. 226.
4. *T.A.S.*, Vol. II, p. 117. [I have not been able to trace the inscription, said to have been discovered in the Gandhāra region. However, Lokanātha (i.e. Avalokiteśvara) of Mūlavāsa was celebrated enough to have been illustrated in colour on a manuscript (no. add. 1643) of A.D. 1015, now preserved in the Cambridge University Library; cf. A Foucher, *Étude sur l'iconographie Bouddhique de l'Inde d'après des documents nouveaux* (Paris, 1900), p. 194, no. 27, Pl. IV, 5. The written label of this miniature is 'Dakshiṇāpathe Mūlavāsa-Lokanāthaḥ'. Flanked by the standing two-armed Tārā and four-armed Bhṛīkuṭī, the four-armed Lokanātha is standing. The label of another analogous miniature (no. 25, p. 194) has been read by Foucher as '(Dakṣiṇâpathe Mûl .. ?)pavâsa-Lokanâthaḥ'. As Foucher has not published this miniature in his book, the label could not be checked. On page 105 of his book Foucher has referred to both miniatures. On this page Foucher did not mention any inscription from Gandhāra.

   In an inscription of about the third century A.D., found on the outer *prākāra* of the Amareśvara temple at Amaravati (District Guntur, Andhra Pradesh), it is stated that 'a gift was made for the benefit of the *Thera* Chitaka of the *Mūlāvāsa-chetiya*'; *Annual Report of the Archaeological Survey of India, 1936-37*, p. 106. If the reading is correct, this seems to be the earliest reference to the Buddhist centre of Mūlavāsa.—Editor]
5. *Ibid.*, p. 116.
6. *Ibid.*
7. *Chila Kerala Charitra Prasngal*, p. 223.
8. *T.A.S.*, Vol. II, plate facing p. 121.
9. *Chila Kerala Charitra Prasngal*, p. 215.
10. *Bhagavadajjukīya*, ed. by P. Anujan Achan, (Trichur, 1925), pp. 8-9.

18

Three published Persian inscriptions from Bengal: a re-study

Ziauddin A. Desai

I

In the field of historical research, Perso-Arabic epigraphical studies have always enjoyed low priority. The same may be said to a certain extent about the north Indian (Sanskrit) inscriptions. While extensive village-to-village survey to trace, copy and list inscriptions in south Indian (Dravidian) languages was started in the second half of the last century by the Government of India through an office especially established for the purpose, north Indian inscriptions in general and Perso-Arabic inscriptions in particular did not receive any such attention. Whatever inscriptions of the latter category came to their notice in the course of the routine or other visits by the officers of the various departments of the State or Imperial Government (in the initial stages) and later on of the Archaeological Survey of India and a few State Archaeological Departments like those of Gwalior and H.E.H. Nizam's Dominions or by a not-so-widely known Archaeological Societies of Agra, Hyderabad and Junagarh were studied and published in the journals like *Asiatic Researches*, *Journal of the Asiatic Society of Bengal*, *Indian Antiquary*, journals of the above-mentioned Archaeological Societies, etc., with the help of mostly foreign scholars like Henry Blochmann, Paul Horn and the like.

Subsequent to the reorganisation of the Archaeological Survey in the time of Lord Curzon, a biennial supplement for Arabic and Persian inscriptions to the journal *Epigraphia Indica* was started and its first number came out under the title *Epigraphia Indica Supplement, 1907-08*, under the editorship of the famous scholar (later on Sir) Denison Ross, then Principal of the Calcutta Madrasa, Calcutta. After him, an Arabic scholar of repute, the great German scholar J. Horovitz, then Professor of Arabic at the Mohammaden Oriental College (later on Aligarh Muslim University), Aligarh, was officially appointed, in an honorary capacity to deal with Arabic and Persian inscriptions. During his tenure as Honorary Muslim Epigraphist to the Government of India, he brought out 1909-10 and 1911-12 issues of the said *Supplement* as an independent journal rechristened as *Epigraphia Indo-Moslemica.* After the deportation of Horovitz at the break-out of World War I, Gulam Yazdani who had received training under John Marshall, Director General, Archaeological Survey of India, and had been appointed to head the newly-started Archaeological Department of H.E.H. Nizam's Dominions, Hyderabad, was made Honorary Muslim Epigraphist in the place of Horovitz and 14 issues of the journal were brought out under his editorship. With the inception of this new journal, while the number of inscriptions copied by the Survey's officials did not appreciably increase, some more records came to light through the State Archaeological Departments, like those of Gwalior and H.E.H. Nizam's Dominions.

But Perso-Arabic epigraphical research occupies a unique place as far as (undivided) Bengal is concerned. More than three centuries and a half of Bengal's history, that of its independent Sultanate in particular, in the absence of a single contemporary chronicler, had to be reconstructed almost exclusively on the basis of coins and inscriptions[1] and some important references by the Arab authors of biographical works.[2] And naturally, therefore, comparatively speaking, Perso-Arabic inscriptions have received far greater attention from the historians and scholars in Bengal, foremost among whom are H. Blochmann, Shamsud-Din Ahmed, Superintendent and sometime Muslim Epigraphist, Archaeological Survey of India, and later on Director of Archaeology, Government of Pakistan and Abdul-Karim. It was for the same reason that, although after partition, India had a regular office for Perso-Arabic inscriptions, East Pakistan (as Bangladesh then was), despite its lagging far behind in the matter of collection and listing of inscriptions, or publishing them in a journal, scored over India in bringing out two important reference books for Bengal history, namely A. H. Dani's *Bibliography of the Muslim Inscriptions of Bengal*, Appendix to the *Journal of the Asiatic Society of Pakistan*, 1957 (also published separately) and Shamsuddin Ahmed's *Inscriptions of Bengal*, Vol. IV (Rajshahi, 1960).

East Pakistan (Bangladesh since 1971) is ahead of India and Pakistan (which unfortunately lags by and large far behind in all aspects of epigraphical studies) in another respect. Unlike in India,[3] a number of scholars and teachers at the universities of Chittagong, Dhaka, Rajshahi, etc. like A. B. M. Habibulla, Abdul-Karim, A. K. M. Yaqub Ali and others, have evinced sufficient interest in this field and brought to light and published quite a few inscriptions from the region in periodicals and journals, about which Indian scholars and historians are little aware. Then again, Bangladesh has the distinction of bringing out very recently a corpus of the Arabic and Persian inscriptions of Bengal, compiled by Abdul-Karim, a renowned historian, epigraphist and numismatist, Professor Emeritus, Department of History and ex-Vice-Chancellor, Chittagong University. This corpus, published by the Asiatic Society of Bangladesh in December 1992, is a revised, enlarged and up-to-date edition of the work of Shamsud-Din Ahmed to whose memory, as "the pioneer Epigraphist of Bangladesh", it is rightly dedicated. It furnishes an indispensable storehouse of epigraphs which will remain for long a reference book for the Sultanate period of Bengal's history and which no student or scholar can ignore.

Due to the communication gap between the three countries of the subcontinent in the matter of research in the historical studies of a common past, I first came to know of Abdul-Karim's great work through a query about it by an Iranian British National friend, a lecturer in a university at London, whom I had met there in May 1993. I received the exact information about it at Islamabad (Pakistan), on asking A.H. Dani in August 1993; Dr. Dani had already a copy of it which he was kind enough to show me. On my return from Islamabad, I requested Hasna Begam, General Secretary of the Asiatic Society of Bangladesh, Dhaka, which had published Abdul-Karim's work for a copy, against payment, but she most graciously sent it as complimentary, for which I am most grateful.

In the course of a cursory glance at this extremely useful, important and up-to-date work—which contains a number of published inscriptions of which I was unaware—in order to find new epigraphical source-material for my lecture on the primary Persian source-material for the Mughal period of the history of Bangladesh,[4] (which was delivered at the Asiatic Society of Bangladesh, Dhaka, on 16th November 1993), I came across a new Persian inscription of sufficient historical interest which I thought could stand re-examination. This and two more similar (published and known) inscriptions are examined in detail in this note which, it is hoped, will be found useful by students of history of the period in this part of the subcontinent.

II

The earliest of these three inscriptions, published at least thrice earlier, comes from Pandua (District Malda, West Bengal, India) which contains the Dargah of two celebrated 14th-and 15th-century saints of Bengal, Shaikh Alaul-Haq and his son Shaikh Nur Qutb-i-Alam.[5] The inscription was first brought to light in the middle of the last century,—a fact not noted by Shamsud-Din Ahmed or Abdul-Karim—by John Henry Ravenshaw who was stationed at Malda for some years as Magistrate and Collector, when 'he had the opportunity of exploring at leisure the still extant remains of the old Capital of Bengal (i.e. Gaur) and of photographing such of these as were most prominent and best preserved.'[6]

The text and translation of the Hazrat Pandua inscription was published in Ravenshaw's work edited with considerable additions and alterations by his widow Caroline Ravenshaw, in 1878.[7] This reading was reproduced by Charles Rieu in his notice of a Persian manuscript in the British Museum Library, London.[8] Rieu's notice, widely used in India also elsewhere, which escaped everybody's attention, has an important bearing on the inscription under notice as will be seen presently. The text and translation were published for the third time in M. 'Ābid Ali Khan and H.E. Stapleton[9] and this has been reproduced by Shamsud-Din Ahmed and Abdul-Karim in their works.[10]

The inscriptional tablet, according to Abdul-Karim, was discovered by Stapleton from a tomb, located a little to the west[11] of the tomb of Shaikh Alaul-Haq, situated in the Dargah of Hazrat Nur Qutb-i-Alam, after whom the town is known as Hazrat Pandua to distinguish it from Pandua in District Hooghly of West Bengal. However, according to Ravenshaw, the inscription was found on a tomb (i.e. grave), on the border of a tank inside the enclosure of the said Dargah.[12] In the epigraphical report of the Archaeological Survey, where the inscription is listed, the provenance is stated to be one of the several graves in the enclosed graveyard inside the compound of the Dargah.[13]

The text of the inscription reads as follows: *Lauḥ-i-qabr-i-ṭifl-i-ma'ṣūm*[14] *'Ināyatu'llāh bin Ṭāhir Muḥammad bin 'Imādu'd-Dīn Ḥusain ibn-i-Sulṭān 'Alī Sabzwāri nawwarallāhu marqadahū. Ghurra-i-Ramaḍān, sana 1017 Hijri.*

It has been translated as under:

This is the tablet on the tomb (i.e. grave) of the innocent (lit. free of sins) child, 'Ināyatu'llāh son of Ṭāhir Muḥammad son of 'Imādu'd-Dīn Ḥusain son of Sulṭān 'Alī Sabzwārī, may Allāh illuminate his resting-place. (He died on) 1st Ramaḍān 1017 Hijri (28 November A.D. 1608).

About the identity of the infant-child 'Ināyatu'llāh, none of the scholars who have published this record has taken note of what Charles Rieu had said within a year or two after the publication of Ravenshaw's book. Shamsud-Din Ahmed and Abdul-Karim simply refer to him as a child of a nobleman whose ancestor came from Sabzwar in Persia.[15] But as Rieu pointed out, Inayatullah's father was a well-known Mughal official and author who served under Akbar (1556-1605) and Jahangir (1605-1626) at various places like Delhi, Mandu (District Dhar of Madhya Pradesh) in India and possibly Bengal. His father had come from Iran and entered Akbar's service and was the governor of Cambay in Gujarat in A.H. 988 (A.D. 1580-81); his elder brother Khwaja Sultan Ahmad is reported to have been a noted poet of Akbar's time. He himself had gone in A.H. 987 (A.D. 1579-80) to Goa, on official work and in A.H. 1013 (A.D. 1604-05) had gone to Burhanpur to inquire into the death of Prince Danyal. He was for some time in Mandu in A.H. 1014 (A.D. 1605) in some official capacity and possibly immediately after the death of Akbar in Jumada 1014 A.H. (October A.D. 1605), he seems to have come to Delhi. After the death of Akbar, he entered Jahangir's service and in the year A.H. 1015 (August A.D. 1606), when Prince Khurram (later on Shah Jahan) went from Agra to Lahore along with the ladies of the royal harem to join his father; Ṭāhir Muḥammad, the father of the deceased child 'Ināyatu'llāh, was in the prince's cavalcade. In that year, he compiled in Persian, a general history of the world called *Rauḍatu't-Ṭāhirīn* (Garden of the Pious), also known as *Tārīkh-i-Ṭāhirī* (History of Ṭāhir).[16]

It is rather surprising that Ṭāhir Muḥammad finds no mention in contemporary works. Henry Beveridge, in his English translation of the *Akbar Nama*, seems to refer to him when he speaks of Khwajagi Tahir, stationed at Patan in Gujarat when Akbar undertook a forced march to Gujarat in A.D. 1583, and referred to his book (*Rauḍatu't-Ṭāhirīn*) for corroboration of Abu'l-Faḍl's account.[17] Jahangir in his Memoirs mentions one Tahir who was *Bakhshī* (pay-master) in Bengal in A.H. 1024 (A.D. 1615).[18] It is quite likely that by this Ṭāhir, our Ṭāhir Muḥammad is intended; for the epitaph under notice points to his association with Bengal in A.H. 1017 (A.D. 1608).

But Ṭāhir Muḥammad has left as his memorial at least three Persian inscriptions, one at Delhi and two at Mandu. According to the Delhi inscription, he had constructed the tomb of the celebrated Persian poet Amir Khusraw, situated in the enclosure of the Dargah of Haḍrat Niẓāmu'd-Dīn Auliya, in A.H. 1014 (A.D. 1605-06). The three-line metrical text inscribed by one Abdun-Nabi, son of Ayyub, was also composed by him, thus showing that Ṭāhir Muḥammad used to compose verses also.[19] At Mandu, he had repaired the highway (*shahrāh*) there according to an inscription dated in the month of Muḥarram A.H. 1014 (May-June, A.D. 1605), during the reign of Akbar.[20] In another inscription from the same place, engraved on the right hand side of the window in the eastern wall of the Ashrafi Mahal, he is stated to have carried out repairs to "that lofty building" also in Muḥarram A.H. 1014 (May-June A.D. 1605).[21]

From the epitaph under notice, it transpires that Ṭāhir Muḥammad was associated with Bengal, where he must have come on transfer. He must have been on his way to the provincial capital Dhaka, accompanied by his family, when at Hazrat Pandua, his infant-child expired and was buried in the saint's tomb in A.H. 1017 (A.D. 1608-09). He must have continued to stay in Bengal until A.H. 1024 (A.D. 1615) when he was transferred from there.[22] It may be of interest to note that Section Five of Fifth Part of his history mentioned above is devoted to a brief account of the rarities and wonders of the ports and islands of Bengal and its neighbourhood.[23] Very likely, this portion was added to his work during his stay in Bengal.

III

The second inscription, the importance of which has not been taken note of, is also from Hazrat Pandua, where it is reported to have been carved on one of the pillars of the Tomb of Shaikh Nūr Quṭb-i-'Ālam.[24] It was first reported by H.E. Stapleton who found it on a pillar at the head of the grave[25] which is covered by a white canopy supported on four red stone pillars. According to Stapleton, the inscription was difficult to read, but nevertheless he quoted its reading which has been reproduced by Abdul-Karim without any comments; Abdul-Karim does not seem to have had any opportunity to verify the reading.[26] Surprisingly, it does not find place in Shamsud-Din's work, nor has it been listed in the epigraphical report of the Archaeological Survey of India.[27] The text and translation of this inscription, which has not been illustrated, are quoted below from Abdul-Karim's work with very minor changes in translation.

TEXT

Kamtarīn-i-gadā ibn-i-Ḥātimu'l-Mulk Pīrzād Khān īn sutūn-hā rā az mulk-i-Ispāniya ba-Astana-i-Haḍrat Burhānu'l-Ḥaq wa'd-Dīn Shaikh Nūr Qutb-i-'Ālam ba-nadhr farastād, ba tārīkh-i-shahr i-Rabī'u'l-Awwal sana hazār wa bīst. Ba-ihtimām-i-Kamāl ibn-i-Darwish Maulavī wa Ustād Gopāl.

TRANSLATION

The most insignificant beggar, son of Ḥātimu'l-Mulk, Pīrzād Khān sent as offering (lit. present) these pillars from the country of Ispāniya to the shrine (lit. Threshold) of His Holiness Burhanul-Ḥaq wa'd-Dīn (lit. Proof of the Truth and the Faith) Shaikh Nūr Qutb-i-'Ālam, in the month of Rabi' I, year one thousand and twenty (Rabi' I 1020 A.H. (= May-June, A.D. 1611). (This work was executed) under the supervision of Kamal son of Darwīsh Maulavī and Ustād (Master-mason) Gopal.

As stated above, Abdul-Karim offers no comments on this inscription which is quite an interesting and at the same time a little intriguing record. It is difficult in the absence of any illustration to vouchsafe the correctness of the above reading which on the face of it is open to doubt, particularly in respect of the name of the donor of the pillars, namely 'son of Ḥātimu'l-Mulk, Pīrzād Khān', that does not sound true, and this fact has some real bearing on the importance of this brief record, presuming that the rest of it has been correctly read.

It will be seen that the pillars are stated to have been sent from Ispaniya which is the Persian name for the country of Spain. If the reading of this part of the inscription is correct—and it does appear to be so, the pillars came from Spain, which is an important piece of information showing the reverence in which the saint was held not only in Bengal and India but even abroad, in Spain. Unfortunately, in view of the unverified reading of the name of the sender of the pillars, it is all the more difficult to establish his identity or nationality. The name Pīrzād Khān son of Ḥātimu'l-Mulk would on the face of it appear to be that of a Muslim, perhaps an Indian, but both names are rather a little uncommon. Ḥātimu'l-Mulk, literally meaning Ḥātim[28] of the kingdom is more a title than a personal name. Likewise Pīrzād Khān is somewhat strange name. Then again, the donor with this name being from Spain also appears a little unlikely.

Therefore, it may not be unreasonable to hold that the donor's name has not been correctly read. Could it be that it is a Christian name which written in Arabic script could not be correctly deciphered by the Munshi or the person who read this difficult-to-read record for Stapleton and deciphered it as "Ibn-i-Ḥātimu'l-Mulk Pīrzād K̲h̲ān"? If the answer be in the affirmative, it would mean that the donor was a native of that part of Spain which is now Portugal whose compatriots were carrying on trade and commerce on a fairly large scale in the ports of Bengal, Arakan and Orissa and having come to entertain respect and reverence for the saint after a visit, or otherwise, he might have decided to make the offering. Of course, the offering, of all things, of stone pillars, unless the stone was of a particular variety not available in India, appears a little unusual.

In the alternative, if the name represents an Indian, it may be that he was associated with the Portuguese traders in the region as a business partner or an employee and may have gone to Spain (Portugal) and stayed there for some time, in the course of which he sent these pillars to Hazrat Pandua.

In any case, this puzzle can perhaps be solved by a minute examination of the record on the pillar itself. Another point worth mention about this record is that it furnishes the name of the master mason or architect, Ustād Gopal, who was incharge of the construction of the tomb. As is well-known, Persian inscriptions of India do not as a rule give the names of architects or masons.

IV

The third inscription, also somewhat uncommon, is again as interesting a record as it is intriguing. The tablet bearing the record is reported to have been built up in brick masonry, above the entrance to the shrine of Shah Mak̲h̲dūm, a celebrated saint of Rajshahi, a district headquarters in Bangladesh.[29] It was first brought to the notice of Maulavi Shamsud-Din Ahmed who published an exhaustive study thereof in a monograph of the Varendra Research Society, Rajshahi, which was later on reproduced in the corpus of Bengal inscriptions.[30] Abdul-Karim reproduced Ahmed's reading, with his own translation and comments in his book.[31]

Since in this case, too, the text is not accompanied by a facsimile, its reading cannot be verified. Presuming it to be correct, which by and large it appears to be, it can be said that both Ahmed's and Abdul-Karim's translation contains a serious mistake. But before discussing this and other aspects of the study of this epigraph, it is necessary to quote here its text as read by Maulavi Sahib, and my own translation thereof.

TEXT

(1) *Muwaffaq s̲h̲ud (bi-) binā-i-gumbad-i-qabr-i-Sayyid Sanad marhūm mag̲h̲fūr al-Wāṣil ilā jawāri'llāh S̲h̲āh Darwīs̲h̲ dar sāl-i-hazār wa chihl wa panj Hijri Nabavi—sa'ādat-naṣīb taufiq-ma'āb zubdatu'l-amāthil*

(2) *wa'l-agrān 'Alī Qulī Baig,*[32] *g̲h̲ulām-i-ālī-ḥaḏrat rafī'-manzilat muqarrabu'l-ḥaḏrati'l-'ulyati'l-'āliyati'l-k̲h̲āqāniya Yūsuf Āqā K̲h̲wājasarā-i-dasturu's-salāṯīn qānūnu'l-k̲h̲awāqīn d̲h̲urriyat-i-Sayyidi'l-mursalīn a's-Sulṯān*

(3) *bin-a's-sulṯan bin a's-sulṭān wa'l-khāqān bin al-k̲h̲āqān bin al-k̲h̲āqān las̲h̲-karkash-i-Irān murawwij-i-madhhab-i-a'imma-i-it̲h̲nā-'as̲h̲ara kalb-i-'Āstān-i-k̲h̲airu'l-bas̲h̲ar ba'd az Ḥaḏrat-i-paig̲h̲ambar ṣallallāhu 'alaihi wa 'alā ālihī wa Amiru'l-Muminīn*

(4) *wa Imamu'l-Muttaqīn 'Alī bin Abī Ṯalīb 'alaihi's-ṣalātū wa's-salām S̲h̲āh 'Abbās a's-Safavī al-Husainī raḥimahu'llāhu wa laqqāhu muḏratan wa surūran.* (*Bait:*) *Gharaḏ naqs̲h̲ist kaz mā yād mānad kī hastī-rā na-mī binam baqā'ī.*

TRANSALATION

(1) Divine guidance for the construction of the dome (i.e. mausoleum) over the grave of the Sayyid, the mainstay, the one taken into the (divine) mercy and pardon, the one who attained the nearness of Allāh, S̲h̲āh Darwīs̲h̲, in the year 1045 Hijra (A.D. 1635-36), graced the fortunate and the divinely guided one, the best (lit. cream) among the peers

(2) and equals, 'Alī Qulī Baig, the slave of His Highness of lofty status, one enjoying nearness of the lofty and sublime person of the k̲h̲aqān (namely) Yūsuf Āqā the *khwājasarā*[33] of—the model of sovereigns and code (of behaviour) for the k̲h̲āqāns, the progeny of the chief of the messengers (Prophet Muḥammad), the sultan

(3) son of the sultan son of the sultan, the k̲h̲aqān son of the k̲h̲aqān, son of k̲h̲aqan commander of the army of Iran, propagator of the creed of the Twelve Imams, the dog (i.e. faithful creature) at the shrine of the best among mankind after His Holiness the Prophet (Muḥammad), may Allah's salutations be upon him and his descendants, the Commander of the Faithful,

(4) the leader of the Righteous 'Alī son of Abū Ṯālib, may (Allah's) salutations and peace be upon him—S̲h̲āh 'Abbās Safavi Husainī, may Allah have mercy on him and favour him with happiness and delight: (Verse:)

The object (of writing this) is (leaving) a picture which may serve as our memento.
For, I do not envisage perpetuity for this life (lit. existence).

Thus it will be seen that the builder of the Dargah, 'Alī Qulī Baig, was not a slave or servant of the Iranian monarch S̲h̲āh 'Abbās Safavī directly, but a slave of his *khwājasarā* and favourite courtier Yūsuf Āqā. The last-mentioned is bestowed with the high title *Muqarrabu'l-ḥaḏrati'l-'ūlyati'l-'āliyati'l-k̲h̲āqāniya*—one enjoying nearness of the sublime and high person of the k̲h̲āqān—which shows the high position he enjoyed at the court of S̲h̲āh 'Abbās. This title is normally used for a minister of first rank.

Another point that calls for consideration is the absence of the name of the ruling Indian king Sh̲āh Jahān in the text. It is quite true as has been rightly pointed out by both Shamsud-Din Ahmed and Abdul-Karim that the name of Sh̲āh Jahān is not mentioned in the text—it may be pointed out that the mention of the name of the ruling king is not a rule in Persian and Arabic inscriptions of India—, but at the same time it would not be *wholly* correct to say that 'instead, the name of Sh̲āh 'Abbās is inscribed'[34] *implying that it is mentioned as a ruling king.* True, the Iranian king has been mentioned with his high-sounding titles, but as is clear from the text, *not as a ruling king, not as having been set up in his reign* as inscriptions mentioning reigning kings explicitly say. Sh̲āh 'Abbās finds mention here only as the master of the builder's master Yūsuf Āqā.

Then again, the inscription with non-mention of the name of the ruling king and mention—even as a ruling king—of a foreign ruler is not unknown in the history of Perso-Arabic epigraphy of India. We know of an Arabic inscription, still extant though not *in situ*, originally belonging to a mosque, at the famous Hindu pilgrim-centre Somnath in Gujarat, which was constructed with the permission of the concerned temple-authorities and other local state officials and endowed with property for its maintenance and for the welfare of the local Muslim community, etc., by a ship-owner and merchant magnate Nūru'd-Dīn Pīrūz of Hormuz, a port on the Persian Gulf, in A.D. 1264, which falls in the reign of the Vaghela king of Gujarat, Arjundeva (*c.* A.D. 1261-1274). The Arabic record, unlike its Sanskrit counterpart, omits the name of the Gujarat king but mentions that of the ruler of Hormuz Amir Ruknu'd-Dīn Maḥmūd to whose reign it is dated.[35]

Another important and rather more intriguing point about this inscription is the identity of Sh̲āh Darwīs̲h̲ mentioned therein as the one over whose grave the tomb was built by 'Alī Qulī Baig, servant of an Iranian dignitary. Maulavi Shamsud-Din Ahmed seeks to identify Sh̲āh Darwīs̲h̲ with Sh̲āh Makh̲dūm after whom the tomb is locally named and traces his—Sh̲āh Darwīs̲h̲'s—genealogy *tentatively* to Makh̲dūm Shaikh Alaul-Haq, on the basis of a manuscript preserved in the Sh̲āh Hazari Estate at Hazrat Pandua.[36] Abdul-Karim, to my mind, rightly, challenges this identification, stating that Sh̲āh Makh̲dūm was no doubt a great saint but his date cannot be determined and he is nowhere mentioned as Sh̲āh Darwīs̲h̲. He also further argues that 'if Sh̲āh Darwīs̲h̲ was a son of S̲h̲aik̲h̲ Zahid (a great grandson of Shaikh Alaul-Haq), as stated by S. Ahmed, he must have died long before 1045 A.H., the date of the present inscription.'[37]

However, he goes a step further and doubts if 'the inscription was originally put up in the dargah of Sh̲āh Makh̲dūm of Rajshahi; it is very probable that the inscription has been brought from somewhere else, may be from outside Bengal.'[38]

While agreeing with him that the identity of S͟hāh Darwīs͟h with S͟hāh Makh͟dūm or with a descendant of S͟haik͟h 'Alāu'l-Ḥaq cannot be said to have been satisfactorily established, it is difficult to accept his view that the tablet was probably brought from outside (Rajshahi), may be from outside Bengal. From somewhere lying loose in Rajshahi yes; but from outside the town or even Bengal—what was the need or the motive for it? No doubt, inscriptional tablets are known to have found place to some building other than to which they belonged, their transportation from one town to another—except to a museum—, leave alone from one province or country to another, is very very rare, and that too, for specific reasons. Out of thousands of inscriptions to be found in the subcontinent, quite a few of them loose or lying uncared for, I have come across cases of hardly a dozen and a half such tablets transported from southern coast of the Arabian peninsula and Iran to the Indian Museum, Calcutta, or Prince of Wales Museum, Bombay, or from India to Britain and United States (to find their way ultimately to the museums there).[39] Therefore, unless some strong evidence comes to the contrary, it will be only reasonable to hold that the inscription is *in situ*.

Still, however, remains the question which Shamsud-Din Ahmed has posed and tried to answer at length, namely as to how 'it was possible for Ali Quli Baig, a Shia dogmatically opposed to the Sunnis, to commemorate the death of a saint of Sunni doctrine, by constructing a mausoleum for him.' According to him, the Shia element—which was infused in Mug͟hal nobility after Mug͟hal emperor Humayun's return from exile in Iran, which had fared well in the time of the liberal-minded Akbar, which had received impetus from Nūr Jahan's brother Āṣaf K͟hān, himself a Shia and had consolidated its position—met with reverse in the time of S͟hāh Jahān who was a devout Muslim and who did not treat them with favour, as a result of which many of the Shia nobles dispersed and settled in provincial towns like Lucknow, Barabanki, Hooghli, Murshidabad and Dhaka. Ali Quli Baig, Shamsuddin Ahmed thinks, was probably one who preferred north Bengal and settled in the town of Rajshahi and as he was a stranger in the country, he thought it advisable, even to follow an adverse doctrine of faith, to win the sympathy of the local people, who were all Sunni Muslims, by doing some charitable work for them; and since, probably, the saint S͟hāh Darwīs͟h had died and buried there long ago, and his mausoleum had fallen badly in disrepair by that time, he availed of the opportunity either to thoroughly repair or renovate it by providing a new dome over it, to gain the good-will of the local Muslims.[40]

Space does not permit nor is it perhaps necessary for us here to examine the above views in detail, which in fairness to Shamsud-Din Ahmed, he himself qualifies them with surmise and probability. The entire exercise of Shamsud Din Ahmed's explanation for Ali Quli Baig, a Shia constructing the tomb of a Sunni saint rests on the hypothesis that S͟hāh Darwīs͟h, a descendant of the Hazrat Pandua's patron saint, was a Sunni and that 'Alī Qulī Baig was one of the Mughal noblemen who had migrated to north Bengal and settled in Rajshahi in view of Shāh Jahān's dislike of Shia nobility. Both these assumptions, however plausible they may seem, are without any basis. Firstly, the identity of Shāh Darwīsh[41] and his being a Sunni has not been satisfactorily established; rather it is still obscure. And secondly, the inscription clearly excludes 'Alī Qulī Baig from the group of Indian Mughal Shia nobles of Shāh Jahān's time, by making him a slave of Yusuf 'Aqā, a high dignitary of Shāh 'Abbās Safavī of Iran. The question of his having migrated, therefore, to north Bengal in the wake of Shāh Jahān's persecution of his Shia noblemen does not at all arise. Then again, it may be noted that as is well-known, Shāh Jahān's court itself had a number of Iranian Shia noblemen, and that Bengal, like other provinces, having had a fairly good number, even majority, of Shia mansabdārs and officials, 'Alī Qulī Baig had no compulsion to 'win the sympathy of the local people, who were all Sunnis', even it were true.

In other words, 'Alī Qulī Baig was not an emigrant Iranian but a visitor to the country. He may have held some post under Yūsuf Āqā. He may have come on some errand, official or otherwise, to Bengal, where a large number of Iranian fellow-beings serving under the Mughals like the then governor Mīr Makkī Mu'taqid Khān and others were stationed. Or 'Alī Qulī Baig might even have accompanied his master Yūsuf Āqā on his visit to India on some ambassadorial assignment and visited Bengal. As is well-known, it was Jahangir's practice—which might have continued—to send members of foreign envoy-teams to different provinces to have a first-hand knowledge of his kingdom. 'Alī Qulī Baig and his master might have come to Bengal on such a visit, during which he might have constructed the tomb referred to in the inscription.

Postscript

After the article was sent to the editor, I have come across references in contemporary history to Ali Quli Baig as well as Yusuf Aqa, which prove the genuineness of the epigraph and clear up most of the surmises about him in the preceding lines. Ali Quli Baig had come to India with the Iranian envoy Muhammad Ali Baig's team to the court of the Mughal emperor Shah Jahan. Before 7th Dhul-Qada 1039 A.H. (18th June A.D. 1630) the Iranian envoy had reached Lahore from Iran and was in India until 8th Rabi II 1042 A.H. (23 October A.D. 1632).[42]

Ali Quli Baig had accompanied the Iranian ambassador when he obtained audience with Shah Jahan at Burhanpur on 3rd Rabi I A.H. 1041 (29th September A.D. 1631) and received a robe of honour and *inam* of 5,000 rupees in cash, according to the court historian Mulla Abdul-Hamid Lahori, who gives his designation as *Mir-i-Akhur* (Chief of the Horse Stable);[43] he was evidently in charge of the horses sent along with other things as *peshkash* from the Iranian ruler to Shah Jahan. He next finds mention as a servant of the Iranian king who had accompanied the envoy, along with another employee of the king, Muhammad Taqi, Custodian of the Presents, on 5th Rabi I 1042 (20th September A.D. 1632); both of them are reported to have received an *inam* of 11,000 rupees in cash.[44] This was about a month before Muhammad Ali Baig was given a ceremonial farewell on being permitted to return to Iran.[45] It is difficult to say for certain if he had also returned with the team or had stayed on for some time. Very probably, he had left with the ambassador.

In any case Ali Quli Baig was in India at least from June A.D. 1630 to 20th September A.D. 1632. It is not unlikely that some time during this period he had visited Bengal and ordered the construction of the mausoleum of Shah Darwish, which was completed—if the year of construction which is given in words in the epigraph is and very probably correct—in the year 1045 A.H. (A.D. 1635-36).

Still, however, the motivation of the construction defies a satisfactory answer.

About Yusuf Aqa, historical works of the Safavid period (which are not readily available to me here at Ahmedabad), must contain some information. That he was a high dignitary wielding considerable influence at the court, even after the death of Shah Abbas, is attested to by Indian historians also. The court historian of Shah Jahan says that he was one of the few high personages unanimously decided to enthrone Prince Sam Mirza on the throne in Jumada II 1038 A.H. (January-February A.D. 1629).[45]

Notes and references

1. Though no systematic survey of these incriptions was undertaken in Bengal as elswhere, British officials, factory-owners, traders etc. like H. Creighton, Major William Francklin, J. H. Ravenshaw, Francis Buchanan and the like were instrumental in bringing to light many monuments and inscriptions which were mostly deciphered and published by Henry Blochmann. For more details, see 'Abdu'l-Karīm, *Corpus of Arabic and Persian Inscriptions of Bengal* (Dhaka, 1992), pp.3-7.
2. See Ziauddin Desai, 'Some New Data Regarding the Pre-Mughal Muslim rulers of Bengal', *Islamic Culture*, XXXII (1958), pp. 195-207.
3. The only exception is the late Professor Sayyid Hasan Askari of Patna who unearthed a considerable number of inscriptions from Bihar. Syed Mohammad also published 'Old Muslim Inscriptions at Patna' in the *Journal of the Bihar and Orissa Research Society*, XVI (1930), pp. 327-422; and Qeyamud-Din Ahmad, when working as a Research officer in the K.P. Jayaswal Research Institute, Patna, compiled and published a Corpus of Arabic and Persian Inscriptions of Bihar in 1973.
4. Abdul-Karim has recently published *History of Bangladesh, Mugal Period*, Part I (Rajshahi, 1992). Earlier, Mughal period of undivided Bengal's history under Akbar and Jahangir and Shah Jahan has been dealt with respectively by Tapan Kumar Ray Chaudhury (1953) and Khwaja Mahbubul-Karim (1974).

5. For an account of the two saints, see *Journal of the Asiatic Society of Bengal*, Vol. XLII (1874), pp. 261-62; Abdul-Karim, *Social History of the Muslims in Bengal (down to A.D. 1538)*, (Dacca, 1959), pp. 104-05.
6. John Henry Ravenshaw, *Gaur: Its Ruins and Inscriptions*, edited with considerable additions and alterations by his widow Caroline Ravenshaw (London, 1878) p.v. These photographs are stated to have attracted admiration at Photographic Exhibitions at Calcutta and elswhere (*ibid.*). It would be worthwhile to trace these photographs as also the reports of their exhibitions since these would provide invaluable data about the state of preservation of these buildings as were extant in the middle of the last century.
7. *ibid.*, p. 53.
8. Charles Rieu, *Catalogue of the Persian Manuscripts in the British Museum, London*, Vol. I (London, 1879), p. 120; *ibid.*, Vol. II (London, 1881), p. 798.
9. M. 'Ābid 'Alī Khān, edited and revised by H.E. Stapleton, *Memoirs of Gaur and Pandua* (Calcutta, 1986), p. 118.
10. Shamsud-Din Ahmad, *Inscriptions of Bengal*, Vol. IV (Rajshahi, 1960), p.270; 'Abdu'l-Karīm, *op. cit.* (1992), p. 427. [The name of Shamsud-Din Ahmed has been written variantly as Shamsuddin Ahamad, Shamsuddin Ahmad and Shams-ud-din.]
11. 'Abdu'l-Karīm, *op.cit.* (1992). Shamsud-Din Ahmed places it on the east (*op. cit.*).
12. Ravenshaw, *op. cit.*, p. 53.
13. *Annual Report on Indian Epigraphy*, 1969-70, No. D, 39.
14. Ravenshaw, *op. cit.*, p. 53, reads: *Ṭifl 'Ināyatu'llāh Ma'ṣūm* "The Child 'Ināyatu'llāh Ma'ṣūm". He also omits the word *Hijri*.
15. 'Abdu'l-Karīm, *op. cit.* (1992), where the Gregorian equivalent is given as 10 December A.D. 1608 (as per the old style).
16. These biographical details, except the Mandu and the Delhi posting, are taken from the notices of his work *Rauḍatu'l-Ṭāhirīn* by Charles Rieu, *op. cit.* and Aftab Asghar, *Persian Historiography in Indo-Pakistan, Great Timurids From Babur to Aurangzeb (932-1118 A.H.)* (in Persian), (Lahore, 1985), pp. 221-24, who seems to have taken these from Rieu and 'Abdu'l-Muqtadir, *Catalogue of Arabic and Persian Manuscripts in the Khuda Bakhsh Oriental Public Library*, Vol. XV (Calcutta, 1929), No. 1748.
17. H. Beveridge, Eng. tr. *The Akbar Nama of Abul-Fazl*, Vol. III (Delhi Reprint, 1989), p. 631 and n.
18. Alexander Rogers and Henry Beveridge, Eng. tr. *Tūẓuk-i-Jahāngīri or Memoirs of Jahāngīr* (Delhi Reprint, 1989), p. 371. It may be noted that in the metrical inscription on the tomb of Amir Khusraw, Ṭāhir Muhammad uses the name Ṭāhir only (su n. 19); it could have been his poetic name or he might have been commonly known as Ṭāhir or Khwaja Ṭāhir as by Henry Beveridge, as seen above.
19. *Epigraphia Indo-Moslemica* (*EIM*), 1915-1916, p. 8; *List of Muhammadan and Hindu Monuments in the Delhi Province*, Vol. II (Calcutta, 1919), p. 162; *EIM*, 1909-10, p. 74, No. 499.
20. *Ibid.*, 1909-1910, p. 19; *ARIE*, 1971-72, No. D, 81.
21. *Ibid.*, pp. 23-24. Maulavi Zafar Hasan who published this inscription takes the inscription to record the construction of this lofty building which is evidently incorrect. The Ashrafī Maḥal was built by the Malwa Sulṭāns. The word *ta'mīr* in the text means 'repairs' here. The epigraph has been listed in *ARIE*, 1971-72, No. D, 79.
22. A. Rogers and H. Beveridge, *op. cit.*
23. Khondkar Mahbubul-Karim, *The Provinces of Bengal and Bihar under Shah Jahan* (Dhaka, 1974) does not refer to this work or its contents.
24. 'Ābid 'Alī Khān and Stapleton, *op. cit.*, p. 107; 'Abdu'l -Karīm, *op. cit.*, p. 429.
25. It may not be known to many of us that a pillar, usually but not necessarily round, at the head of a

grave, at least in the Indian subcontinent, is a symbol of martyrdom attained by the occupant of the grave, as is proved by epitaphs on some graves with these pillars. The other such symbols are a pen-casket (*qalamdan*) for a male grave and a writing-board (*takhtī*) for a female one.

26. 'Abdu'l-Karīm, *op. cit.* (1992), p. 429.
27. A number of inscriptions from Hazrat Pandua have been listed in the *ARIE*, 1969-70 under Nos. D, 23-50, but not this one.
28. Ḥātim of the Ṭayy tribe of the Arabs is proverbial for his generosity.
29. Shamsud-Din Ahmed, *op. cit.*, p. 271.
30. *Ibid.*, pp. 271-75.
31. 'Abdu'l-Karīm, *op. cit.*, p. 436.
32. *Ibid.*, has here conjunctional *wāv* ("and") which is a misprint.
33. Both Shamsud-Din Ahmed and 'Abdu'l Karīm translate this phrase as 'Yūsuf-like master of the servant' which is meaningless.
34. 'Abdu'l-Karīm, *op. cit.* (1992) p. 437.
35. *Epigraphia Indica Arabic and Persian Supplement* (*EIAPS*), 1961, pp. 11 and fn. 4, 12-13.
36. For details, see Shamsud-Din Ahmed, *op. cit.*, p. 272.
37. 'Abdu'l-Karīm, *op. cit.* (1992), p. 438. Maulavi Shamsud-Din Ahmed, *op. cit.*, p. 273, also states that 'Shāh Darwish had died and been buried here long ago.' He never says that he died in A.H. 1045.
38. 'Abdu'l-Karīm, *op. cit.* (1992), p. 438.
39. *EIAPS*, 1955 and 1956, pp. 2-3, 30, 31; *ibid.*, 1957 and 1958, p. 1; 'Abdu'l-Karīm, *op. cit.* (1992), pp. 191, 226, etc.
40. Summary of Shamsud-Din Ahmed's views in his own words (*op. cit.*, p. 273).
41. For some further information about the saint, etc., please see Mohd. Yahya Tomuze, *Sufi Movement in Eastern India* (Delhi, 1992), pp. 138-39, where among other things, a reference is made to 'a recent publication of Bengal Academy of Dacca, 1961' recording the saint's death in A.D. 1592 at the age of 117 years.
42. Abdul-Hamid Lahori, *Badshah Nama*, II, part i (Calcutta, 1867), pp. 304 and 441.
43. *Ibid.*, p. 397.
44. *Ibid.*, p. 433.
45. *Ibid.*, p. 441.

19

A note on an inscribed portrait-statue of Mūrtiśiva from West Bengal

Niranjan Goswami

It may readily be seen that the list of 'authenticated portrait-statues'[1] is very short in the ancient Indian art. Different epochs have yielded only a small number of examples, and these too lie scattered over widely-distant areas. The quantum of materials available offers a poor foil to the vast array of sculptural products in the early historical period. This significantly betrays an apparent lack of enthusiasm of the Indian genius in the art of portraiture—a feature which is difficult to explain in the present state of our knowledge. Nonetheless, the objects that have come down to us are not the least important, offering, as they do, an interesting field of research. Any addition to the number of known pieces gives an opportunity for further detailed study of the subject.

We may distinguish the personages whose representations are found in early Indian art into three broad categories. In the first place are the royal statues; in the second we find represented the faithful laics and donors, and the third category comprises figures of monks and ascetics. A select number of dynasts had occasionally shown an interest in portraiture for a variety of purposes. The Sātavāhanas, a major indigenous dynasty in the Deccan, would seem to be the earliest to install royal portrait-statues for exhibition in a public place. At Nanaghat in western Deccan are met with remnants of a set of relievo-sculptures of several members of the ruling house. Though the figures have disappeared almost completely, there are labels incised above the head of each, which help us in identifying the damaged works of art. The portraits included, among others, the figures of the widowed queen, Nāyanikā, her husband King Sātakarṇi, their sons, king's father and her own father. Apparently the carving of the figures took place in connection with the performance of certain sacrificial rites. The inscriptions have been assigned on palaeographical grounds to the second half of the first century B.C.[2]

There seemed to have been a strong tradition within the immigrant population of Śaka-Kushāṇa origin in India of carving the portraits of their rulers and setting up the effigies in dynastic memorial halls (*devakula*). It may be held that the practice evolved in conformity with the cult of the emperor created by the Kushāṇas. B.N. Mukherjee maintains that they indulged in worshipping statues of both living and dead kings.[3] The official sanctuary discovered at Mat near Mathura is said to have contained the statues of Vīma Kadphises, Kaṇishka I and Chashṭana.[4] The building of *devakulas* for other important Kushāṇa potentates is also known from inscriptional sources.[5] It would be interesting to note that the early Indian dramatist, Bhāsa, the author of the *Pratimā-nāṭaka* (*c.* third-fourth century A.D.), has explained the meaning of the term *devakula* in a different light. The expression, according to him, refers to a shrine containing idols of deities. Human statues of deceased rulers, on the other hand, find their resting place in a hall which passes by the simple designation of *pratimā-gṛiha*. It would appear that an ancestral cult was prevalent also among a few indigenous rulers of north India in the early centuries of the Christian era. Bhāsa mentions that a *pratimā-gṛiha* existed for housing and maintaining the statues of the departed kings of the Ikshvāku dynasty.[6]

The growing tendency towards the exaltation of the royal class had its echo in the sphere of artistic activity in the country also in the post-Gupta era. In the far south, in particular, the Pallava and the Choḷa rulers received respectful attention in the contemporary temple art of the region. The Ādi-Varāha cave-temple (*c.* sixth-seventh century A.D.) at Mahabalipuram is furnished with two remarkable reliefs depicting the Pallava kings Siṁhavishṇu and Mahendravarman I, each accompanied by their queens. The historical statues can be recognised from labels appearing at the top of each figure.[7] Reference may also be made to the portraiture of the well-known Choḷa emperor, Rājarāja I (*c.* A.D. 985-1014). His figure was rendered both in stone and painting in the Rājarājeśvara temple at Thanjavur.[8] T.E. Donaldson has pointed out that motifs illustrating various activities of royal personages became popular decorative elements in temples of Orissa from the mid-tenth century onwards.[9] A relief-panel depicting the celebrated Gaṅga king, Narasiṁha I (*c.* A.D. 1238-64), receiving the *ājñāmālā* (list of commandments) from the chief priest is found in the *pūjā*-platform in the Sūrya temple at Konarak.[10]

The majority of figures belonging to the second group come from the rock-cut *chaitya*-cave temples and *vihāras* of western India. From the reports of J. Burgess, who studied extensively the caves in the Deccan plateau, it would appear that the practice of setting up effigies of founders, restorers and benefactors of temples in the sacred precincts was widely prevalent in this area in the centuries immediately before and after the Christian era. About the donor-panels at Kanheri, Burgess writes: 'the care bestowed on the figures in the panels on each side of the entrance door, which have a finish scarcely anywhere else displayed, suggests that they are meant to be portrait-statues of the excavators of the cave and their wives.'[11] At Kondane, the excavator of the shrine had his figure carved in the *chaitya*-hall. The associated inscription, in characters of the second century B.C., identifies him as Balāka, pupil of the master sculptor Kanha (Kṛishṇa).[12] Similar relievo-panels of donors are to be found also in the *chaitya*-halls of Ajanta and Karle.[13]

In the subsequent period, authenticated donor-figures are few and far between. Gouriswar Bhattacharya enlarges our repertoire somewhat by his recent publication of an independent donor-relief from Bihar datable to the eleventh-twelfth century A.D. The stone stele depicts a corpulent male standing figure, holding a garland with both hands. The pedestal contains an inscription in characters of the eleventh-twelfth centuries A.D., which reads as *dānapati-śrī-Tārasenaḥ*. Bhattacharya thus identifies the image as a portrait of Tārasena, a donor (*dānapati*), who made gifts to promote religious interest.[14] The figure is of interest, as it offers an insight into the mode of carving donor-figures in the mediaeval period.

That the tradition of enshrining images of prominent sectarian leaders and ascetics had taken roots in the Indian soil in the Gupta age may be attested by epigraphic records. In popular mind they too were divine and deserved to be treated with reverence. The evidence furnished by the Mathura pilaster inscription of the Gupta era 61 (A.D. 381-82), belonging to the reign of Chandragupta II, would help to elucidate the point. The inscription states that the Māheśvara teacher Uditāchārya established two effigies of his teachers, Kapila and Upamita in a teacher's shrine (*gurvāyatana*) 'for the commemoration of the preceptors and for the augmentation of the religious merit of himself.'[15]

Later on, a number of inscriptions divulge a host of names of religious teachers belonging to different pantheons, but their images seldom appear in sculptures. Among the few extant examples, which are authentic representations of religious personalities of the mediaeval period, the following two attract attention. Both are from eastern India and represent Śaiva teachers (*āchārya*) of the Mattamayūra order. One of them was noticed by D.R. Das while conducting a survey of a group of mediaeval temples at Ranipur-Jharial in Orissa in the recent past. The figure, sculpted on the passage-wall of the entrance of the Someśvara temple, exhibits an ascetic seated with both legs folded. His two hands are held near the breast, grasping some indistinct object. Das has affirmed, on the basis of the associated inscription engraved on the lintel over the entrance doorway of the sanctum, that the figure may be identified with that of the *āchārya* Gaganaśiva, who caused the temple to be erected. The shrine has been assigned to *c.* A.D. 950, on the ground of certain architectural features characteristic of the period. Scholars have pointed out that name-endings like 'śiva' or 'śambhu' are common suffixes used by teachers of the *Mattamayūra* school, an important branch of the Śaiva religious system. Thus, Das justly regards Gaganaśiva as a member of the sect.[16]

The image, presently under discussion, is an independent portrait-statue of another *Mattamayūra* saint, now preserved in the Asutosh Museum of Indian Art, Calcutta University. The item (Accession nos. T. 3919 and T. 3919A), hitherto unnoticed, is of unusual interest from the historical point of view. As the entries recorded in the Museum Register show, it was collected in 1955 from Dogachia in District Nadia, West Bengal. The composition exhibits a group of three ascetics standing side by side. Unfortunately, the sculputre has suffered extensive damages, being broken in two fragments. The figure (Pl. 19.1), 84 cm. high and 41 cm. wide, at the middle is standing erect, but broken off at the knee; his two hands are also gone. The remaining portion (Pl. 19.2), 42 cm. high and 46 cm. wide, bears the two feet of the central figure, placed on a full-blown lotus; on his either side appear two other ascetics (the head of the figure to proper right is broken off) who are placed on subsidiary lotuses. These two are shown in *tribhaṅga* flexion, each having his left hand held to waist, and the other holding some indistinct object near the chest. Two male attendants (with their heads broken) occur on the extreme sides—the one on the dexter is shown with folded palms and the other has a flower held in the left hand. The pedestal bears the figures of a male and a female, both seated with their legs folded in worshipping attitude.

As is common in the hieratic art of India, the central figure standing in *sama-pāda* and occupying the middle of the composition is represented as larger than the other two ascetics. It is also carved in the round, while the associate figures are set against the back-slab. Except for these distinctions, all the three ascetics are identical in appearance and similarly attired. Each has some locks of hair falling over both shoulders. A vertical *tilaka* marks the forehead. Each sports a moustache and long pointed beard. Their bodies are bare except for a thick *upavīta* (sacred thread) and a loin-cloth (the central figure at least having an *uttarīya*), but each has on his head an extraordinarily-large *jaṭā-bhāra* arrayed in an elaborate transverse pattern.

The sculpture is carved out of black stone and belongs to the art-traditions of the later Pāla phase. The main figure has a broad full face and open eyes. The treatment of the beard and other features of the face resembles such mid-eleventh century works as the image of Brahmā from Jianagar in District Bogra.[17] Other stylistic elements comprising the smooth delineation of the bodily features, metallic finish of the carved surface and the floriated pattern of the lotus-petals on the pedestal are also comparable to the sculptural products of north Bengal in the approximate period.

The dating accords with palaeographical evidence. In fact, the value of our specimen is much enhanced by the occurrence of three short identificatory labels, incised at the lowest part of the pedestal beneath each of the figures of the ascetics, revealing the name and status of each. The name of the ascetic on the dexter cannot be made out properly owing to mutilation of letters (Pl. 19.3), but the first part of the inscription reads: '*paṇḍitā ayaja (paṇḍitāgraja) Śrī...*' ('the front-ranking scholar...'). The label at the centre (Pl. 19.4) may be deciphered as '*paṇḍitā ayaja (paṇḍitāgraja) Śrī Mūrtiśivaḥ*' (Śrī Mūrtiśiva who is a front-rank scholar); and that to proper left (Pl. 19.5) reads: '*paṇḍitā ayaja (paṇḍitāgraja) Śrī Yadu mahīyasaḥ*' ('of the great Śrī Yadu, who is a front-rank scholar').[18]

The style of writing is of interest to us. In particular, the letter forms of consonants 'pa', 'ya', 'ma' and 'sa' are shown with their heads closed by the use of top strokes.

This mode of writing conforms to the criteria of developments in palaeography in eastern India in the eleventh century. However, it may be mentioned that the date of the carving may be narrowed down further. As will be discussed below, there exists some external evidence which indicates that it actually belongs to the reign of the Pāla king Nayapāla (*c.* A.D. 1027-43) and may be dated near the end of his rule.

The scheme of composition, as noted above, makes it clear that the dominant character in the group is that of Mūrtiśiva. A clue to his identity may be found in the Bangadh inscription of the time of the afore-mentioned Pāla ruler, Nayapāla, the son and successor of Mahīpāla I (*c.* A.D. 977-1027). The important record preserves an authoritative account of the foundation of a Śaiva *maṭha* and the multifarious activities conducted by its resident monks during the Pāla regime.[19] The fairly-large stone slab containing thirty-five verses was discovered at Śivavāṭī (locally pronounced as Śibbāḍī) in the vicinity of the archaeological site at Bangadh in District South Dinajpur, West Bengal, and presumably the *maṭha* in question was established not far from it. Excavation at the extensive ruins at the site, known as Koṭivarsha in ancient times or Devīkoṭ has revealed that the place was in continuous occupation from the chalcolithic period till the Muslim conquest in the thirteenth century. It was probably the headquarters of the Koṭivarsha *vishaya* during the Gupta rule and continued to flourish as a prosperous city within the Pāla domain.[20] As can be gleaned from the testimony of the Bangadh inscription, the Śaiva *maṭha* at this important urban centre had achieved considerable material success with the active patronage of the Pāla monarchs. The Bangadh record informs us that both Mahīpāla I and his son extended liberal munificence to the *maṭha*.

Brāhmaṇical ecclesiastical institutions called '*maṭha*' or 'abode of monks' had become a familiar feature in the religious life of India in the mediaeval period. From epigraphical sources, it would emerge that a number of such centres came into existence in Bihar and Bengal from the seventh to the tenth century A.D.[21] The Śaiva *maṭha* at Śivavāṭī affords interesting glimpse into the functioning of establishments of its kind in the contemporary phase.

The Bangadh inscription discloses the names of six teachers (*āchāryas*): Vidyāśiva, Dharmaśiva, Indraśiva, Sarvaśiva, Mūrtiśiva and Rūpaśiva. It was the third *āchārya* in the list, Indraśiva, who was said to have founded the *maṭha* at Bangadh with the liberality of Mahīpāla I. The *maṭha* according to the description given in the epigraph, was a huge complex and included a Śiva-Śakti temple within its precincts.

Indraśiva was followed by his disciple Sarvaśiva, who became the spiritual guide of King Nayapāla. It is stated that Sarvaśiva retired to the forest after offering the status of the Gauḍa king's preceptor to Mūrtiśiva, his younger brother and disciple. Apparently Mūrtiśiva followed him also in the high office of the pontiff of the Śaiva establishment.

Śrīkaṇṭha, the author of the Bangadh *praśasti*, styles his composition as the Mūrtiśiva-*praśasti* or the 'eulogy of Mūrtiśiva'. The expression is suggestive in that it underscores the pre-eminent position of the poet's favourite ascetic among other teachers residing in the *maṭha*. The general purport of the eulogy is that the religious leader had laboured hard for securing the eminence of his faith and the centre under his charge and obtained glory. He took the initiative to excavate a number of large tanks and raised gardens to beautify the monastery and caused several lofty temples to be built. He was a zealous exponent of the Śaiva philosophy and gained distinction by refuting the views of other sectarian groups. It would seem that the Śaiva centre during his tenure rose to new heights of glory. The feat so inspired his followers that they sought to enshrine his statue in the *maṭha* itself. We are told that Rūpaśiva, a second disciple of Sarvaśiva and close friend of Mūrtiśiva, took a special interest in this and caused the *praśasti* of Mūrtiśiva and his image to be made. Assuming that the work was accomplished near the end of the saint's career or immediately after his demise, a date of *c*. A.D. 1043, the last known date of Nayapāla,[22] may not be out of place for it. D.C. Sircar observes that this is the earliest occasion when a portrait of a Śaiva teacher was installed in a temple of Bengal.[23]

Because of their distinctive name-endings like 'śiva' or 'śambhu', Sircar has concluded that the line of teachers mentioned in our epigraph belonged to the Mattamayūra school. It may be ascertained from varied references in inscriptions that votaries of the sect were the founders of the Golakī-(or Golagī-)*maṭha*, and that several establishments of this order flourished in different parts of the country during the period from the ninth to the thirteenth century.[24] The first two teachers in the Bangadh inscription are also claimed to have been attached to the Golakī-*maṭha* near Jabbalpur in Madhya-Pradesh and Varanasi in Uttar Pradesh respectively.[25] There is no gainsaying the fact that the *maṭha* at Bangadh marked an important milestone in the eastward expansion of the network of centres built by the energetic Mattamayūra ascetics.

The name of Mūrtiśiva appears in two records—the Bangadh *praśasti* and the Asutosh Museum image inscription. There is a strong ground to believe that the ascetic, named in the two records, actually represents one and the same person. Firstly, the extant sculpture roughly corresponds in date to the time of Mūrtiśiva, who headed the Śivavāṭī *maṭha*. Secondly, it would indeed be remarkable if two eminent protagonists of the same sub-sect, bearing the same name lived in the Pāla domain during the same period. The identity of the two companions of Mūrtiśiva in the stone sculpture, however, cannot be ascertained without further information.

Whether the extant image is the same as that installed at Śivavāṭī, as mentioned in the Bangadh *praśasti*, becomes also a moot point. It may be argued that a centre of the Mattamayūra school came into existence at Dogachia, the find-spot of our image, and that the figure belonged to a sanctuary in the place. In that event, the two associate ascetics whose figures are shown in the composition may be regarded as *āchāryas* of the local *maṭha*. But this assumption has several weak points. It may be noted that the sculpture in question was collected as a stray find from the place. Besides, the site at Dogachia has so far yielded little that may be of interest from the archaeological point of view.

Alternatively, it may be debated that our specimen was actually removed by fleeing devotees from the Śivavāṭī-*maṭha*, presumably at the time of its destruction by the invading Muslim army at the beginning of the thirteenth century. Interestingly, K.G. Goswami, who carried out excavations at the site of Bangadh for several seasons, did not report the finding of any image of Mūrtiśiva from the spot. The fact would indirectly lend support to the inference that the image was transported elsewhere to save it from the hands of an alien army. The image was perhaps brought to Dogachia for the purpose of its rehabilitation.

Whatever be its original habitat, the Asutosh Museum statue attracts attention for more than one reason. It is the earliest and only image of a Śaiva religious teacher so far available in Bengal and can be dated with a fair amount of accuracy on the basis of palaeography. Viewed along with the Bangadh inscription, it provides basic data for understanding certain intriguing features of the religious beliefs and practices in vogue in the Pāla regime. The early Pāla rulers professed faith in Buddhism, but at least a few of them did not show any hesitation in choosing their preceptors drawn from a different sect.[26] Mūrtiśiva must be counted as an important personality during his time. He served the interest of his sectarian establishment with zeal and presumably succeeded in carving out a strong base for it in Bengal. The installation of his image in a shrine speaks eloquently of his popularity and stature among his special votaries.

Notes and references

1. T.G. Aravamuthan, *Portrait Sculpture in South India* (London, 1931), p. 1. Interestingly, early Indian literature is replete with references to images of kings and great men, cf. J.N. Banerjea, *The Development of Hindu Iconography* (Calcutta, 1956), p. 37.
2. G. Bühler, 'Nanaghat Inscriptions', *Archaeological Survey of Western India*, Vol. V, 1884 (reprinted by Indological Book House, Varanasi, 1970), pp. 59ff. Also, D.C. Sircar, *Select Inscriptions Bearing on Indian History and Civilisation*, Vol. I (Calcutta, 1965), pp. 190-92. On a sculptural panel (*c.* first century B.C.) in Rāṇī-gumphā at Udayagiri near Bhubaneswar in Orissa is 'shown a king with a queen on either side seated on a stone bench and in a worshipping posture', see *Archaeological Survey of India, Annual Report, 1922-23* (reprinted by Swati Publications, Delhi, 1990), p. 131. This, however, seems to be a conventional representation of the royalty, as the king has not been identified by any label.
3. B.N. Mukherjee, *The Rise and Fall of the Kushāṇa Empire* (Calcutta, 1988), pp. 314-18.

4. The concerned Mat inscription also refers to an official in charge of the dynastic sanctuaries (*bakanapati*). For a thorough discussion of *devakula*, see B.N. Mukherjee, *The Kushāṇa Genealogy* (Calcutta, 1967), pp. 57ff. Also, *Archaeological Survey of India, Annual Report, 1911-12* (reprinted by Swati Publications, Delhi, 1990), pp. 121-27; L. Bachhofer, *Early Indian Sculpture* (Paris, 1929), Pls. 76-78; B.N. Mukherjee, *The Rise and Fall of the Kushāṇa Empire*, pp. 113-14.
5. K. Das (Bajpayee), *Early Inscriptions of Mathura—a Study* (Calcutta, 1980), pp. 62-63.
6. M.R. Kale, *Pratimānāṭakam of Bhāsa* (Bombay, 1930; reprinted by Motilal Banarsidass, Delhi, 1977), pp. 25ff.
7. H. Krishna Sastri, *Two Statues of Pallava Kings*, Memoirs of the Archaeological Survey of India, No. 26, 1926 (reprinted by Swati Publications, Delhi, 1991).
8. S.R. Balasubramanyam, *Middle Chola Temples* (Faridabad, 1975), pp. 31ff.
9. T.E. Donaldson, *Hindu Temple Art of Orissa*, Vol. III (Leiden, 1987), pp. 1170-73.
10. T.E. Donaldson, *op. cit.*, Vol. II (Leiden, 1986), Figs. 1356-57.
11. J. Burgess, *Report on the Buddhist Cave Temples and their Inscriptions*, Archaeological Survey of Western India, Vol. IV, 1883 (reprinted by Indological Book House, Varanasi, 1964), p. 62, Pl. XL, Figs. 2-4.
12. *Ibid.*, p. 9, Fig. 9.
13. *Ibid.*, p. 47, Pl. XXXVII, Fig. 1. Also J. Burgess, *The Buddhist Stupas of Amaravati and Jaggayapeta*, 1887 (reprinted by Indological Book House, Varanasi, 1970), p. 97, Pl. LII, Figs. 5 and 7.
14. G. Bhattacharya, 'A Unique Dānapati-relief', *Studies in Art and Archaeology of Bihar and Bengal : Dr. N.K. Bhattasali Centenary Volume*, ed. Debala Mitra and Gouriswar Bhattacharya (Delhi, 1989), pp. 165-66, Fig. 1.
15. *Corpus Inscriptionum Indicarum*, Vol. III (New Delhi, 1981), pp. 236-42.
16. D.R. Das, *Temples of Ranipur-Jharial* (Calcutta, 1990), pp. 13, 49 and Pl. 19.
17. Susan L. Huntington, *"Pāla-Sena" Schools of Sculpture* (Leiden, 1984), Fig. 236.
18. B.N. Mukherjee, Carmichael Professor, and A. Bhattacharya, Reader, in the Department of Ancient Indian History and Culture, Calcutta University, rendered valuable assistance in reading the inscriptions. Shri Janaki Jiban Bhattacharya, noted Sanskrit scholar, helped in restoring the Sanskrit expression in the labels. The author is grateful to them. [The labels are carelessly engraved creating a confusion in respect of their decipherment. The errors might have been committed either by the scribe who had drafted the text of the labels or the engraver or even both. It is also not unlikely that the engraver, a semi-literate person, who was more familiar with the dialectical terms than the Sanskrit ones, was not provided with any written draft and he engraved as per his understanding of the words verbally spoken to him. I feel that *paṇḍitā-ayaja* is a mistake for *paṇḍitāchārya*. Even the name of the important Śaivāchārya Mūrtiśiva is not correctly written by the engraver, as the dental *sa* has been engraved in place of the palatal *śa*. The reading 'Yadu mahīyasa' appears to be doubtful. Compared to the Bangadh inscription of the time of Nayapāla, the letter *ta* is more developed in the labels.—Editor]
19. D.C. Sircar, 'Mūrtiśiva's Bangarh Praśasti of the time of Nayapāla', *Journal of Ancient Indian History*, Vol. XIII, Parts 1-2, 1980-82 (Calcutta University, 1983), pp. 34-56. The same inscription was published by Sircar in an earlier issue of the same Journal, Vol. VII, Parts 1-2, 1973-74 (Calcutta, 1975), under the title of 'Bangadh Stone Inscription of the time of Nayapāla'.
20. K.G. Goswami, *Excavations at Bangarh: 1938-41* (Calcutta, 1948), pp. 2-4. Cf. A. Ghosh, ed. *An Encyclopaedia of Indian Archaeology*, Vol. II (New Delhi, 1989), p. 47.
21. A. Bhattacharya, 'The Maṭhas of Eastern India in the early mediaeval period', *Journal of Ancient Indian History*, Vol. XVII, Parts 1-2, 1987-88 (Calcutta University, 1990), pp. 164-178.

22. D.C. Sircar, 'Comments on the Pāla Chronology', *Journal of the Asiatic Society*, Vol. XVIII (Calcutta, 1976), pp. 97-98. [The Pāla chronology, as worked out by D.C. Sircar, needs revision with the discovery of the copper plate of the seventh regnal year of the Pāla ruler Mahendrapāla (son of Devapāla) at Jagajjibanpur, District Malda (West Bengal). Earlier, Mahendrapāla, mentioned in some short inscriptions from Bihar and Bengal, had been wrongly identified with the Pratihāra king Mahendrapāla. The Pāla king Mahendrapāla ruled for more than fifteen years after Devapāla and before his younger brother Śūrapāla I.—Editor]
23. D.C. Sircar, 'Bangadh Stone Inscription of the time of Nayapāla', *Journal of Ancient Indian History*, Vol. VII, p. 150.
24. V.S. Pathak, *History of Śaiva Cults in Northern India* (Varanasi, 1960), pp. 31ff.
25. D.C. Sircar, 'Bangadh Stone Inscription of the time of Nayapāla', *Journal of Ancient Indian History*, Vol. VII, p. 138.
26. D.C. Sircar, 'Siyan Stone Slab Inscription of the time of Nayapāla', *Journal of Ancient Indian History*, Vol. VI, Parts 1-2, 1972-73 (Calcutta University, 1973), pp. 39-47.

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Some reflections on the terracotta art of Bangladesh on the basis of the archaeological evidence from the 3rd century B.C. to the 11th century A.D.

Amita Ray

For an analysis of the terracotta art of Bangladesh, it is necessary to begin with a short resume of the geophysical situation of the delta. Geographically, this is a unit enclosed between the Tipperah hills on the east, the highlands of Rajmahal and Chotanagpur on the west, the Nepalese Tarai on the north, and sea on the south. From the west and the north a number of wide rivers flow down to the sea, spreading their alluvial deposits on the flat plain lands. The principal plain-region on the basis of physiographic characteristics and material civilization can be divided very clearly into two eco-cultural regions. The first zone formed by the natural division was an inseparable part of the heartland of the Ganga valley, where historical forces worked in response to the culture of the core region situated in the north of India. Geographically, this division, Varendra or the tract of Pleistocene alluvium deposit, stretches over an upland which is bounded on the east by the Brahmaputra river, on the west by the Ganga-Rajmahal gap, on the south by the Padma sloping down towards the sea, and in the north by the upland merging into the fringes of the Himalayas. Due to its advantageous geographical position this region played a major role in the transmission of culture coming in from the Gangetic valley. History started in this part of the country with the Maurya penetration.[1] Since that period the historical-geographical factors were conducive to the growth and development of this region through successive inflows of men and culture. The earliest of the great kingdoms that established itself as a regular dynasty in this region and linked this part of the country directly with the middle Ganga plain was the Gupta kingdom.[2] But between the time of the Mauryas and the Guptas there was a remarkable phase dominated by the Śuṅgas and the Kushāṇas, even though there is no proof that they exercised political control over this tract. The Varendra region was the main hub-land during this period, though its fringe areas extended to as far as the Tippera surface. The evidence of the material civilization found in this region no doubt suggests a cultural pattern which followed closely the footsteps of the Gangetic civilization.

The second geographically and culturally distinguishable area is an immense deltaic plain (of the Meghna-the Padma) near the old confluence of the Brahmaputra with the Meghna-Surma rivers, where the Padma joins the Meghna. The history of this region started during the post-Gupta period when, following the decline of the later Gupta empire, a number of short-lived local dynasties emerged.[3] Historically, what is important to note is that, this was the time when the political and cultural unity of the Ganga valley became fragmented, and there was, therefore, no hindrance to the ushering in of local and regional cultures. Besides, the inscriptions of the period clearly indicate how the region of Varendra by the sixth-seventh century A.D. had no spare land to accommodate any fresh influx of people into this part of the country.[4] There was thus no alternative but to open up a new land mass for the colonization of immigrants coming in. The most important events of the time were, firstly, the emergence of a new power structure under the indigenous rulers, and secondly, the extension of the geographical horizon further into the interior, thus engulfing Samataṭa and Harikela into its realm.

There is still a third part of this region which comprises the upland area formed by the Tippera hills, the central part of which is occupied by the Lalmai-Mainamati tract. Human life seems to have started in this region already in the stone age, the remains of which do not give a clear picture as yet. The region was focussed in history during the period which started by the end of the sixth century A.D. though the flourishing stage was in the eighth-ninth century A.D. The Nāvyamaṇḍala said to have been located in the Barisal-Bakhargunj area,[5] and also Sylhet region, formed of silt carried down by the rivers from the Lusai-Khasi hills, came into importance during the tenth century A.D., where considerably-large settlements grew up.[6]

Life in this part of the country has been greatly influenced by the geographical configuration. The rivers carrying heavy silted sediments not only caused fertility in the land, but this soil-form inspired the people to go for the natural medium of art in clay. Thus, it is no wonder that Bengal from the hoary antiquity introduced a rich terracotta art tradition; interestingly enough, this still remains a living tradition in this part of the country. Taking the total assemblage of terracotta art into view, the contents range from votive offerings representing magical images to a highly sensitive rendering of male and female figurines.

Proceeding historically, the earliest materials available in Bengal can be categorically termed as the archaic type, found in this region from the prehistoric period. These forms are hand-modelled representation of females and animals. Unfortunately, the archaeologists of Bangladesh have not laid bare sites like Pandurajardhibi or Farakka to reveal the stratigraphical position of such terracotta specimens. But stray finds collected from different parts of this region leave no room for doubt that the practice of making such figures was in vogue in this part of the country and that these represented a style which remains untouched by historic evolution. But from these essentially-timeless types there emerged different types of female figurines holding in them the potency of the mother concept. Physically and mythically the 'mother goddess' assumed the greatest importance in the speculative thought and art of this region. Through arrow-line of time the concept of mother goddesses persisted in art, and we observe how during the second century B.C. they appeared as *yakshīs* along with their male counterparts *yakshas*. The feminine spirit, supposed to have been the mother source of the tree and human being, is shown in Indian art standing against trees, embracing them, and thus becoming an aspect of the tree—articulating the interpenetration of plant and human being—the *śāla-bhañjikā*. Besides this, the mother concept is expressed in innumerable forms. These figures, though expressing principles of abundance in the forms of sap of life, *Śrī*, plenty, nevertheless reflected contemporary tastes, fashions and spirit. Interestingly, an increase in the production of such terracotta figurines became prolific with the emergence of an urban situation during the second century B.C. What is important to note is that unlike the timeless archaic figures, these figures, which could be called as time-bound, presented the ideational perspective of the time in which they appeared. More significantly, such forms and types are found in the stratified levels representing different periods from the relevant sites all over northern India, Since Bengal was connected with this pan-Indian socio-historical situation,[7] such figures are found in large numbers in this region as well. A look into the archaeo-historical situation of Bengal may not, therefore, be uncalled for.

Archaeologically speaking, it can be seen that during the second century B.C. and onwards, the vast tract of land stretching from the Bhagirathi-Hooghly delta to the Karatoya basin, was studded with a large number of small and large settlement-centres.[8] The so-called N. B. P. W. culture of the time linked this stretch of land with the middle Ganga plain. With the rapid progress of urbanisation in this region, the most important antiquities were the rich wealth of terracotta art-objects. What is again noteworthy in this connection is that such specimens of art discovered in the early historic centres of this region show a remarkable uniformity and almost identity of style with respect to physical form, dress, jewellery, myths and symbols as noticed elsewhere in the Gangetic valley. There is no doubt that the practice of the use of moulds (at times of identical objects) all over the Gangetic valley including parts of the northern para-delta of Bangladesh, was the main cause for such uniformity of style and features. It seems that along with other luxury objects which included also the glossy pottery of the N.B.P.W. the terracotta figurines became commodities for the markets, and hence such figurines found their way easily to different early historic sites of West Bengal and Bangladesh. Needless to say that the clientele of such terracotta objects, despite differences in geographical locales, were influenced by the tastes and visions typical of the time. The rich texture of the historical realities of the period reflecting urban social climate is most eloquently shown through the terracotta art of this period. The striking affinities of the types with similar objects of the Gangetic valley, at least in terms of forms and themes suggest that some of these terracotta figurines were manufactured in certain central workshops from where they were exported to various centres. As for example, the winged figure found at many north Indian sites is seen almost in photographic resemblance at sites like Mahasthangarh, Chandraketugarh (Pl. 20.1) and Tamluk. Similarly, the torso of a female, wearing a girdle around the waist, found its route to the furthest end in the north to Punjab, and the easternmost limit at Mahasthangarh (Pl. 20.2) in Bangladesh. Wearing urbanized garbs, these males and females represented the time factor, secularized and sensualized. One may argue at this point that the terracotta art of the time, which is rich in social content, reflected the culture ideology of the contemporary *nāgaraka* class. Indeed, the vast and sumptuous array of themes represented by supple physiognomical forms burst forth, at times boisterously, in mundane delight and love. One can witness in these the contemporary life of mid-India spreading out in pageantry and grandeur. There are scenes from the *Jātakas* and folk-fables, but by far the largest number of the art pieces are representations of young men and women, busy in their day-to-day life and in action-filled events. These, no doubt, indicate a change in the attitude of life, due to an expanding economy and a consequent quickening of the socio-economic life. It is clear, therefore, that Bengal during this time was part and parcel of the contemporary urban culture of northern India sharing the same bourgeois elegance and sophistication.

Among the excavated sites of undivided Bengal which have yielded such terracotta objects in profuse number, the most important are Tamluk, Chandraketugarh, Bangarh and Mahasthangarh. For the purpose of this paper, I will first take up the richest yields of terracotta figurines, discovered in the site of Mahasthangarh, it being the key site for the entire region.

Mahasthangarh, on the Karatoya, is today the name of a village, about 13 km. north of the present-day town of Bogra. The ancient site consisting of a number of small and large mounds, locally called *dhipi*, is encircled by a massively-fortified oblong enclosure, measuring 5000 ft. in length by 4500 ft. in breadth, and rising to an average height of 15 ft. from the adjacent rice field.[8] The Karatoya being connected with the Brahmaputra must have been in the past a navigable river along with the Brahmaputra-Meghna disgorging water into the sea, cutting through the soft, new found land of river-silt and tidal sand. This is a geographical phenomenon which seems to have been continuing ever since the beginning of history. The site seems to hold in its womb the remains of an ancient city, the antiquity of which could be traced back to as early as Aśoka, if not earlier. Beginning around this date, Bengal became the co-sharer with the ferment of the social climate that sprang up here as a part of the upheaval of the emergent urban situation of northern India. It is important to note that a large-scale production of terracotta art-objects in this region coincided with this historical phenomenon.

Though the site[9] was connected with the Maurya king Aśoka, archaeologists have not unearthed as yet any specimen representing diagnostic Mauryan terracotta revealing its typical time-bound stylistic traits, as evidenced in the sites of the middle Ganga plain and the site of Tamluk. On the other hand a limited number of hand-made terracotta figurines, found from the Mauryan level, representing human and animal figurines bearing punched circlets and incised lines marking parts of the body, no doubt, indicate that these were used as votive offerings. There is, no doubt, that the process of urbanization, which was already on in the art of Mahasthangarh during this time, had no impact on this phase of terracotta art of this region.

But from Period II of Mahasthangarh, i.e. from the second-first century B.C. to the beginning of the first century A.D., there was an unprecedented growth of terracotta art-productions. The archaeological materials laid bare at this stage reveal an interesting historical situation. One observes that though the region during this time was not under the political authority of north India, the materials unearthed from this phase bear an unmistakable resemblance to the north Indian types; this is shown in the coins, scripts, ceramics and in the large number of terracotta figurines which, more often than not, depicted males and females of any rich man's household, in addition to symbols and myths of a pan-Indian character. Undoubtedly, this uniformity of style and of myths could be accounted for as the basis of the common socio-cultural situations giving rise to collective tastes of the people. These are found in the flowering of numerous centres of art. Unlike the earlier period when art was essentially symbolic and suggestive, the period showed an inclination in narration. This is reflected in a number of reliefs appearing in the terracotta art-objects of this period. Period II of Mahasthangarh reveals innumerable terracotta plaques representing not only *yakshas* and *yakshīs*, but also the richly-dressed couples manifesting urban taste, either as part of themes like the *Jātakas*, or of secular events, or incidents connected with the life of a *nāgaraka* (Pls. 20.3, 4, 5 & 6). Interestingly when choosing such themes one may have had special fascinations for ornamenting the males and females with jewelleries of various kinds. The adoption of moulds helped the artisans to cater to the mass-demand for such objects. Among the objects found from Period II of Mahasthangarh we may mention a few figurines: one is a musician couple (Pl. 20.3); the second is a chariot drawn by three horses (Pl. 20.4); and the third, a fragmentary plaque preserving elephants and a *chāmara*-bearer (Pl. 35.5). The themes and manner of representation are common with terracotta figurines found during the Śuṅga period. The chariot led by plumed horses increases the volumes of the relief and is enriched with modelled details. The surface of the figures is conceived as the protruding mass of a three dimensional body emerging from the relief. This was the result of a stylistic synthesis achieved by the mixture of several traits coming in, with the influx of people from different parts of India.

The tempo which has its start in the earlier period reached its climax under the so-called Kushāṇa period. Economically, Bengal during this time became involved in the expanding trade that linked the whole of India with one economic thread. The archaeology of Mahasthangarh region shows how during this period (Periods II and III) the area came into closer contact not only with other parts of India, but with the Hellenistic Greeks, Central Asian nomads, and perhaps also (though indirectly) with the people of alien culture living in the north-western parts of Indian subcontinent. The deluge of the so-called Kushāṇa terracotta sculptures yielded by the archaeologists' spades from the early historic sites of Bengal (of which Mahasthangarh happens to be a very important one) shows definite imprints of such a cultural picture. This is most clearly evident in the archaeological materials found on chance discovery from a place called Mangalkot[10] in Bangladesh.

Located close to the fortification-wall of Mahasthangarh, the site of Mangalkot has revealed a hoard of terracotta figures comprising a large number of heads of men and women characterized by individual features. The hoard also includes a few huge-sized terracotta figures in the round. Viewed as a whole these terracotta figures provide interesting information regarding the contemporary situation, indicating how this region had an impact of the Gangetic civilization from the 1st-2nd century A.D. till 5th-6th century A.D..

The repertoire of art-form clearly indicates that these terracotta figurines are most varied in form and were spread over a period of three hundred years. While on the one hand the hoard presents a rich imagery of the contemporary urban life, on the other hand it depicts devices connected with cult-images that have grown up from the complex religious situations prevailing during the period.

On the basis of the vast array of terracotta figurines, the three broad categories can be discerned: (i) heads and busts; (ii) grotesque; and (iii) large-sized human figurines used as cult figures.

The first group, which constitutes the largest number of figurines on the basis of themes, may again be divided into two distinct types. The first type consists of portraits of males and females, primarily of the higher section of the society (Pls. 20.7, 8, 9 and 10). The figures are hand-made and modelled in the round. Generally speaking, these figurines do not exhibit any generalized type but clearly represent individuals, portraitures of particular characters. The individualization is indicated almost in a descriptive nature such as articulately-defined features with well-shaped nose, wide-open eyes and lips having a smile of contentment. These types are characterized by strikingly varied countenances, but indicating close affinities with the types found in any Kushāṇa site of the middle and the lower Ganga plain. Some of these faces reflect foreign ethnic features.

The second group highlights more generalized types, but the faces are beautifully proportioned and sensitively rendered. A terracotta head (Pl. 20.11), evidently of a young woman with slightly longish facial features, a softly-open pair of lips, the head covered with hair parted in the middle and locks falling on the forehead and bearing a soft expression of self-fulfilment, is a unique example of this type. It is possible to perceive in this type how the figures of this category highlight features and expressions of a feminine type, which is not very common in typical Indian art, but is not unknown to the Hellenistic-Roman experience of the first, second and the third century A.D. One wonders whether such a character was not a direct outcome of the contemporary socio-historical phenomenon linking the Bengal coast with the rest of the Kushāṇa world.

Another significant category of terracotta figurines of this type, representing a number of female forms, is characterized by the regularity of features (Pl. 20.12). The softness in the modelling of the contours and subdued sensuousness of the physiognomical form contributes a distinct character to these terracotta figurines. The terracotta art of this category very clearly indicates a transitional stage towards the Gupta idiom. Eyes are characterized by incised lenticular lines with another set of circular lines marking the pupils.

Besides these groups there is a relatively smaller group consisting of mask-like and also grotesque faces and busts. They present close affinities with similar faces from the contemporary sites of eastern India (Pls. 20.13 and 14).

The hoard also includes large-sized figures representing types of cult images. One such is a torso of a mother and a child (Pl. 20.15). Seated in European fashion, these figures exhibit exceptionally-refined features with naturalistic modelling. On stylistic grounds the terracotta figurine of this kind has a great deal in common with the Kushāṇa-based Gupta art of the third-fourth century A.D.

It is interesting to observe how the images in the hoard show a heavy dependence on Mathura models as sources for inspiration. Even in the figurines demonstrating Gupta stylistic traits the artists could not ignore the expansive volume and earthiness which were favoured by the Mathura artists of the Kushāṇa period. Some of the faces which are characterized by wide staring eyes, bow-shaped brows, full lips, ascribable to the Gupta-post Gupta period, show the influence of Kushāṇa-based Gupta form (Pl. 20.16) of Mathura.

The repertoire of art-forms demonstrated in the terracotta figurines found at Mangalkot is indeed most astounding. The hoard clearly indicates the continuation of a rich tradition of terracotta art in this region for a fairly long period. The hoard throws interesting light on the socio-cultural and the stylistic character of the region during the Kushāṇa, Gupta and the post-Gupta periods. The emphasis on individualization and sensitive rendering of the modelling strongly suggest the artists' familiarity with the terracotta art of the Kushāṇa period. The hoard also provides a good idea of the stylistic features, characteristic of the Kushāṇa, Gupta and the post-Gupta times. Notwithstanding such stylistic variations, figures found in the hoard show elements anticipating the establishment of a distinctive tradition of art in the region in terracotta, parallel to stone sculpture. The historical association of these figurines with any known archaeological site cannot be ascertained with certainty (as the salvage operation at this site has revealed a structure which cannot be earlier than the post-Gupta period), but these terracotta figurines give a clear and faithful picture of this region, revealing the fact that historically the area occupied an important position in the socio-economic life of the Gangetic valley.

Proceeding archaeologically, the north of Bangladesh has laid bare interesting evidence of terracotta art prevailing in this region from the Maurya period to post-Gupta times. The survey of the materials, found from different archaeological sites scattered over this region and of the objects laid bare in the stratigraphical sequences at Mahasthangarh and other cognate sites in the region, shows that clay was the natural medium of art in the terraqueous country like Varendra, and this was used continuously through the arrow-line of time. But compared to the Maurya-Śuṅga-Kushāṇa types the discovery of Gupta terracottas is more frequent. The find-spots of these objects are concentrated in the northern part of Bangladesh, in addition to the lower Ganga valley, which is not directly connected with this paper. From the accumulated evidence it is clear that during the post-Kushāṇa period the format of images was very much changed. The earlier *yaksha-yakshī* tradition appears to have ceased completely. Instead, a new type of art-form emerged. Three distinct groups are evident in the amalgam. The first group represents the cult-figurines (of small sizes) connected with the dominant religion of the time; the second is the moulded and modelled type representing both secular and divine figurines—at times these are busts; the third group consists of narratives, telling either the stories of the *Rāmāyaṇa* or the *Kṛishṇāyaṇa* as forms of adornment of Brāhmaṇical temples, which were built with the grants given by the rich people. Relieved of iconographic dictates these narrations on the walls of the brick temple seem to have had a great social relevance. The terracotta art of Bengal during this period is characterized by the highest perfection and refinement. Stylistically speaking, in all these forms the basic tradition of art precludes an out-growth of the preceding Kushāṇa-Gupta idiom. But as one observes, the process indicates not merely the continuation of the earlier tradition, but indigenous traits constituting a very important aspect as well and these are visible in playful freedom and emotional abundance displayed in the essential rhythms of daily life. Yet the overlay of Gupta art continued to remain as a distinctive character of the art of Bengal for well-nigh two centuries.

Speaking about the first group of terracottas, i.e. the figurines representing cult-images, we refer to an image of Sūrya found at Mahasthangarh (Pl. 20.17). Made from a soft plastic mass of clay and clad in a tunic-like dress tied up by a heavy sash around the waist, the erect figure is adorned with a conical crown; locks of wavy hair fall on the shoulders. The practice of scalloping an oval nimbus behind the head is characteristic of the Kushāṇa-based Gupta form; the image displays evidences which are close enough in compositional scheme to the stone image of Vishṇu of Norhatta (Pl. 20.18). Another typical example of this group is a fragmented image (Pl. 20.19), now kept in the Mahasthangarh Museum. Its provenance is unknown. Distinguished by a slightly-oval face, open eyes, flowing curly hair, and showing divine countenance, the image is strongly reminiscent of the Kushāṇa-based Gupta image. The third example in our consideration is a Bodhisattva image (Pl. 20.20) from Mahasthangarh. Mathura-based Kushāṇa-Gupta artistic influence could be detected in the facial features, such as heavy lower lip, wide-open eyes and slightly-elongated chubby face. Its pre-Gupta date may be suggested by the treatment of the earlobes, which have not taken as yet the complete shape of elongation. An image (Pl. 20.21) of Bodhisattva from Kichak (located six miles south of Mahasthangarh) is another example of this type. In proportion, modelling and in facial features the image anticipates the Buddha-Bodhisattva form of the Gupta period. The Mathura heritage is clearly evident in this image. The second group (mostly explored materials from Mahasthangarh region) comprises a number of figurines which include some individualized faces portraying both males and females besides a few semi-divine images. These figurines show how wonderfully the stylistic idiom of the Kushāṇa-based Gupta art was introduced in this region—vibrant, buoyant and ideally balanced between spirituality and sensuality. A female head (Pl. 20.22) from Mahasthangarh crowned with a snake-canopy (interestingly snake is a constant motif at Mangalkot), a sparsely-ornamented male (Mañjuśrī?), from the same place (Pl. 20.23) and an image of Vishṇu (Pl. 35.18) from Kichak area show a great stride towards the mature Gupta style. Formally these figurines, exhibiting heavy lower lips, half-closed eyes, arching brows and curly hair, tie very closely to the established tradition of the Gupta art of the time. The body represented as a composite organism, suggesting it as a whole, not as interdependent parts. That the art style of Bengal during this phase not merely shows the extension of the mainstream of the Gupta plastic idiom of middle and north India, but the trait marks a clear manifestation of well-formulated Gupta stylistic idiom in this region. Admittedly, there is a dearth of materials in respect of artistic production in stone, but terracotta art which was most prolific in number clearly confirms northern Bengal as being the heartland of Gupta art. The Mahasthangarh Museum and the Bangladesh National Museum have in their collections several images of this mature artistic expressions. Each one in the assemblage, whether secular or religious, is marked by the Gupta aesthetic ideal. The portrait-heads of *nāgarakas* from Mahasthangarh (Pls. 20.24 & 25), for instance, appear to have been a most successful sculptural expression of the classical Gupta idiom. The infusion of Gupta stylistic idiom is evident in the refined delicacy shown in the modelling and in the naturalistic treatment of the face, neatly arranged hair and the happy but blissful expression. The figure of this kind (Pls. 20. 26, 27 and 28) no doubt displays individualized elements suggesting portraiture-like character. One may presume that these images were commissioned by the new class of artistocratic clientele that had grown up in this part of the country either because of large-scale colonization from the north of India, or through the emergence of a wealthy group of people connected with growing trade and commerce.

Regarding the third group of art-objects which constituted a medium of narration, Bengal seems to have developed a rich tradition during the seventh century A.D. Carved on rectangular plaques, and set along the exterior of the structures as temple adornments, the narrative art of Bengal seems to have taken its inspiration from the stylistic source prevailing in the Ganga-Yamuna valley. It is interesting to notice how in spite of the dominance of the regional rulers on the ruins of the Gupta empire, the influence of the Gupta culture-ideology and its art was felt throughout Bengal. Thematically this narrative content was associated with Vaishṇava shrines, the strong religious movement sponsored by the kings and the nobility. In direct response to this new wave, sculptural decorations of the temples (contemporary epigraphs speak about the erection of several temples of Vishṇu and Vāsudeva)[11] were closely linked with the epics, the *Purāṇas* and the *Kṛishṇa-līlā*. The patrons of this art possibly intended to do social service by offering a visual media for disseminating such stories among the masses. Fortunately, a large number of such plaques, ascribable to the last half of the seventh and the eighth centuries A.D., have been found in the northern part of the present-day Bangladesh.

The recent discovery of the Palasbari-Saralpur hoard, containing fifty-five uniform-sized terracotta plaques (12″ × 8″ × 1½″), all inscribed in the later Gupta script, telling the story of the *Rāmāyaṇa*, is one such example (Pls. 20. 29, 30 and 31). The plaques no doubt were used for decorating the faces of some Vaishṇava temples erected in the neighbouring region. Arranged in continuous narrative manner the story is told in a summary fashion and often by symbolic means. Stylistically, the sculpture of this type is a document of contact with widely current stylistic strand visible in the Ganga-Yamuna valley in the sites like Nacharkherha (Haryana),[12] Saheth Maheth, Ahichchhatra, Bhitargaon and Aphsad. The practice of adorning temples with narrative and decorative panels suggesting social kinship with the heartland of the north Indian culture is an important socio-historical evidence. This shows how the Gupta derivation could be traced even at a time when the country was marching fast towards formation of a regional identity under regional rulers.

An analysis of the Palasbari-Saralpur hoard comprising fifty-five terracotta plaques, most of which could be identified by the accompanying inscriptions, would disclose the terracotta art tradition, in terms of themes (narrating the story of the *Rāmāyaṇa* in continuous succession) and style, disclose extensive influence of the northern, central and eastern Indian Gupta and later Gupta style. As a matter of fact, looking at the materials of this hoard one realises that, in general, the imagery keeps pace with the styles and subjects of contemporary stone sculptures, highlighting Gupta sensitivity with strong traces of soft modelling and well-proportioned bodies, but not so formalized as the stone images of the period.

Behind this stylistic commonality between Bengal and the Ganga-Yamuna valley, there is, however, an important difference. This is evident in the ethnical types depicted in stockily-built physical frames, slightly-elongated facial types with pronounced cheek-bones and in the flora of the country, shown in the use of the banana tree as the background of the landscape. The human figures presented in clear visualization and sensitive perception of the full youthful body impart to the theme a strong aesthetic support. The character appearing on the reliefs records highlined emotion, free and lively movements and the sensuous participations in the joys and sorrows of day-to-day material life. The heroic, stately and beautiful figure depicting Rāma's stringing the bow of Paraśurāma (Pl. 20.29) or the themes representing slender-bodied Sītā being bathed before marriage (Pl. 20.30) or the baby Lakshmaṇa and Śatrughna lying in bed with their mother Sumitrā (Pl. 20.31), various incidents (Pls. 20. 32-36), Bharata rushing to Rāma to deliver the message of Daśaratha's death, the queens lamenting the death of Daśaratha, the deliverance of Ahalyā by Rāma from the curse and the like are all marked by dramatic confrontation indicating various emotional moods. Such secular quality of these reliefs seems to have sprung forth from the dominantly-secular ambience prevailing in the region, howsoever religious these were meant to be. Interestingly, it is found that when the contemporary stone sculptors were engrossed with iconic preoccupation, the terracotta art of Bengal exuded an involvement with emotive participation, which has been so vital in the socio-cultural and psycho-emotive life of Bengal.

From an analysis of the themes illustrated in the Palasbari-Saralpur hoard one notes how the artists were involved with local rites and rituals; these could be seen in the scenes like depicting the death of Daśaratha, the marriage of Rāma and Sītā which was associated with various local festivities like *adhivāsa*, *kanyā-sampradāna* etc. Looking at the details of the story narrated, there is reason to believe that in spite of the strong influence of the mature Gupta terracotta tradition, the terracotta art of this category was nurtured by the ideas and ideologies of the people of Bengal, and in consequence had intimate connection with ethnic and local roots. The modelling shows delicacy of the Gupta heritage, but the composition of the sculpture and the detailed rendering of the stories reveal the local elements which were beginning to emerge in varying processes, to crystallize finally in a much later ballad literature of the region, such as *Maṅgala-kāvya*.

It is outside the scope of this paper to enter into a detailed study of all these inscribed plaques, though one feels tempted to do so (fortunately a fairly good compendium of this hoard has been prepared by Afroz Akmam of the Bangladesh National Museum, apart from some plaques by Gouriswar Bhattacharya). Cast into Gupta-based art-moulds and identifying the stories through inscriptions, the technique of narration has adopted a descriptive treatment, highlighting the climax of the episode. The details which are required to underline the main course of events are never omitted. At places even the environment is indicated by means of symbols. As for example a bearded saint (*upādhyāya*) is shown with *upāchāras* (Pl. 20.33). In another plaque Sītā is shown entering a temple with the intention of seeking Rāma's hand as her husband, more symbolically than descriptively (Pl. 20.36). The temple is indicated by a lotus-medallion and conch-shells shown on the lintel of the gate. The composition is apparently simple, but various movements are artistically integrated.

Besides this Palasbari-Saralpur hoard, the area of Mahasthangarh has yielded from time to time scattered terracotta figures (in round and in plaque), representing male and female figures, and illustrating stories or events either connected with day-to-day life or related to idols enshrined in the temples. The amorous couple from Mahasthangarh (Pl. 35.10) reveals the clear debt to contemporary terracotta relief-sculptures of northern India. The supple body-structure, curly wavy hair, scanty drapery, open eyes, crescent-shaped mouth and its refined sensitivity, so favoured by the Gupta and later-Gupta artists, are present here. We may refer in this context to a few terracotta temple-plaques recovered from the northern part of Bangladesh. These plaques illustrate the semi-divine couple (Pl. 20.37) or divine couples in addition to a few narrative themes (Pl. 20.38). The style suggests a date around the seventh century A.D. The vestiges of the flowing Sarnath idiom are clearly evident in the treatment of the modelling emphasizing the sense of soft flesh, a subtle rhythm and a greater charm of suppleness.

The discoveries of these terracotta art-objects are of prime historical importance. Firstly, these offer important evidence regarding the astonishing virtuousity of the clay modellers working in this part of the country. And secondly, the evidence is historically important as it illustrates most convincingly the continuity of the rich tradition of terracotta art in this region during the post-Gupta period, a fact which provides sufficient ground to pose a question against the opinion of some art historians who suppose that the art of terracotta ceased to exist in India with the end of the second urbanisation. The terracotta art which flouished thereafter as an accompaniment of temples, is, according to them, feudal in character. If we accept the view that temples and terracotta adornments are the products of the feudal society, we should be aware at the same time that temple promotion during this period was for popular participation, and thus these were always constructed on an open, or easily accessible place in order to make a temple an effective communication centre. As a matter of fact, the temple-terracottas narrating the stories of the *Rāmāyaṇa* and the *Kṛishṇāyaṇa* were in reality the media of communication between the peasant society and civilization, as it was with the Buddhist *Jātakas* and scenes from the life of Buddha in the early narrative phase (Pls. 20.39,40 and 41). Besides, the period witnessed a culmination at various levels of art and culture from the regional points of view. Indeed, with respect of art, the emergence of architectural ornamentation attached to the religious edifices in terracotta media introduced a new phase of art in Bengal. To begin with, it took its sap from the mother source, that is the classical heritage; with the passage of time through consolidation of the regional power and culture, the ideal of art gradually began to take its root deep into the soil. The distribution of settlement by that time had spread much beyond the hub-land of the Gupta politico-cultural area. During the seventh-eighth centuries A.D., the newly-emerged region (i.e. Samataṭa and Harikela) must have especially flourished, as one of the most notable monuments, namely Paṭṭikera-mahāvihāra (Mainamati) located in this region date to this period. It is no exaggeration if one states that the monastic structures of the time were adorned with the finest terracotta sculptures. Its history, however, followed a different direction from that of the terracotta art-work found in Palasbari-Saralpur hoard and the like.

While one discusses the stylistic development of terracotta sculptures used as adornments of temples in Bengal, one notes that creative potentials of terracotta-ornamentation ran parallel to temple-building activities of the period. Interestingly, most of the renowned structures during the seventh to the twelfth centuries A.D. were Buddhist in religious affiliations. Presumably, all these structures were decorated with friezes of terracotta or stucco ornamentation, the vastiges of which have been found from different places of northern and eastern parts of Bangladesh. Built over a period of five centuries, but most extensively during the first three centuries, the terracotta ornamentation of these temples constitute a different art idiom from that of the preceding Gupta artistic style. These features are evident both in the style and themes of the works. At Paharpur the themes contain narration from the *Pañchatantra* and *Bṛihatkathā*, besides representing men and women in various actions and poses, including people of primitive tribes depicting characteristic ethnic features (Pls. 20.42-47). The world of animals and birds also find their places on these plaques. The terracotta art of this phase though exhibits the same character, the richness of themes is more elaborate. The artists of Paharpur and Vasu-vihar not only represent here the rich world of flora and fauna (Pls. 20.48-50), but illustrate a peculiar world of fanciful imagery (Pls. 20.51-53), the types which were absent in the earlier bas-reliefs. Indeed, the decorative schemes in terracotta in bold relief on the outer walls of the temples and Buddhist structures of the period mark a complete break of the tradition from that of the Gupta-based art of this region. The sprawling creepers and the rich flow of tails of fish, beasts and birds, the elegantly-modelled human figures in the round, set either on the friezes around the temples, or on either sides of the doors suggesting facial features and expressions of semi-mythical, semi-divine beings, reflecting a supreme sense of happiness and self-contentment, reveal no association with the preceding idiom of the classical Gupta stylistic traits.

One thing we are certain of is that the types of the human figures that appear on the reliefs in Paharpur, Mahasthangarh (Pl. 20.57) and Mainamati (Pls. 20.54-56), have no affinities with the stone sculptures of the time which were, generally speaking, cult-images conceived in terms of correctly-laid regulations of rituals and iconography. The ideal of the terracotta artists, on the other hand, was to create a joyous, carefree attitude and rhythm of movement through ample curves and flowing lines passing through the mythical and semi-mythical figures. The basic trend evident in this art shows the beginning of a new art idiom, partly creating a world of fanciful imagination with the help of figurative ornamentation, and partly using these friezes as architectural components. Thematically, the artists show no intention in creating a world of pantheon in association with the deity enshrined in the structures. It is important to note that though the primary objective of these figurines was architectural, that is, meant to be used as adornments of religious edifices, truly speaking, these decorative plaques do not seem to have been organised harmoniously with the structural format.

Coming to the question of the search for the antecedents of the terracotta art of this phase, the group conveys an impression that there was no direct precedence for this type of images in Bengal. But if the terracotta art of Paharpur is to be taken as venturing for the first time for a new language of art by breaking the tie from the age-old connection of the Gupta stylistic trait, we may begin our study with Paharpur for tracing its origin. Historically, the emergence of the Paharpur school might have been caused by the newly-developed political and cultural entity of the region which consciously aspired for separation from the age-old-bondage of the Gangetic valley. Besides, by this time the Gupta plastic idiom which was used as the common denominator of art throughout India became disintegrated. In the midst of this vacuum, the regional psychology opened up a new vista fostering regional, social and aesthetic ideals. Though the stone images of Bengal of the time show the remnants of the high tide of Gupta plastic conception of eastern India, a separate endeavour is evident in the terracotta art of Bengal during this time, which derived its inspiration from the submerged art of the people of Bengal. Taking the themes and spirit from the day-to-day life, the terracotta art of Paharpur had burst forth in the rhythm of daily life which was intensely human, lively and powerful. The scantily-dressed people of Paharpur that took part in the scenes exhibit neither any trace of inwardness of thought and expression nor is there any trace of refined sophistication and sensitivity. The sharply-defined features, bulging big eyes and full round faces are characterized by a naive unsophisticated simplicity, and that is the main essence of the terracotta art of Paharpur. Indeed, the emergence of the Paharpur school and the subsequent development in terracotta art of the region has occupied a special position in the art history of Bengal. The artists working in this media in all probabilities were village artists, and hence there was an overall negation to hierarchical religious order.

But though the terracotta art of Mahasthangarh and parts of Mainamati came to the fore simultaneously with Paharpur, they exhibit a different kind of ideational perspective. It is important to observe how in the same media, the terracotta artists of these places presented a different world to the viewers. Even a cursory glance at the large number of temple-plaques found in these two places would reveal that the artists worked here with a different background. They not only selected themes which were highly original, but in their formal languages they adopted a media which neither resembled Paharpur, nor showed any influence of the Gupta plastic idiom. They let their imagination move loosely in playful gestures through mythical, divine and semi-divine beings, depicting female figures with fish-bodies, human figures with a monster's head gripping a hybrid animal, female figurines with bird-bodies, a male musician playing a stringed instrument and winged males and females. In addition to these images a number of decorative themes depicted by the artists made use of fanciful animals and birds. Geese appeared most frequently, at times shown floating on water. Another popular motif was of vegetal ornamentation showing flowers, leaves, stalks in meandering and interlocking combinations. It is important to note that the art during this phase does not represent any human figure associated with day-to-day life, the theme which was the main content of art at Paharpur. Despite the fact that the structures were connected with Buddhist shrines and monastic establishments, the terracotta ornamentation shows no awareness of the Buddha-legend.

In respect of form, the art of terracotta of this period at Paharpur and Mainamati depicts two separate trends: one local, indigenous, intensely lively, powerful and humane. The formal value of this phase is evident at Paharpur, the beginning of which had no connection with the preceding Gupta heritage. The multitude of figures, that appeared in the narrative reliefs on the temple structure at Paharpur, reveal definite ethnic traits. This idiom emerged in the process of cultural growth at the different levels of society, starting from the lowest rung of life. But the second trend, that is the art-form that emerged at Mahasthangarh and at one level at Mainnamati (one group of Mainamati terracotta art shows influence of Paharpur) was an isolated phenomenon in respect to the sculptural history of this region. Indeed, the style and the thematic content as evident in the terracotta art of these two places appear to have had no relevance to society or social needs. The presence of the mythical, semi-mythical figures, birds and beasts on the walls of the religious structures cannot be explained in terms of iconography; neither could it be visualized as manifestations of the cultural development of this region.

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21

East Indian sculpture: formative centuries

Gautam Sengupta

I

The history of sculpture in eastern India dates from *c.* 3rd century B.C., if not from a still earlier period. There exists widely-dispersed evidence of stone-carving or clay-modelling, be it animal-capital on the Maurya monoliths, railing-reliefs (first century B.C.) of Bodh-Gaya, Kumrahar and Rajasan or immensely-productive terracotta figurines from a large number of early historical sites from western extremities of Bihar to the northern part of Bangladesh, covering major part of West Bengal.

Admittedly, some of these stone sculptures either originated beyond eastern India, or were carved in idioms which were not specific to the region. But it is in terracotta, the artists of eastern India found a medium *par excellence*. Compared to the meagre output in stone, the terracotta figurines reported from early eastern Indian sites are simply overwhelming. Yet, one cannot but ponder over the paucity of stone sculptures in the early periods of eastern Indian art. As early as 1929, N.K. Bhattasali posed this problem with reference to Bengal.[1]

'It would be difficult to say when the Fine Arts began to flourish in Bengal, but presumably they did so from very early days. The city of Pauṇḍravardhana is a famous place in Bengal even from the dawn of history. The fort at Koṭālipāḍā, with which the name of the great conqueror Chandravarmman is associated, dates from the beginning of the 4th century A.D. The town of Tāmralipti in the Midnāpur district of Bengal is even older. The rise of Karṇa-Suvarṇa—in the Murshidābād district, Koṭivarṣa—in the Dinājpur district, and Sābhār—in the Dāccā district, is to be placed earlier than the rise of the Pālas. The copper-plate inscriptions of the Gupta Emperors, (Epigraphia Indica, Vol. XV) from Dāmodarpur, the Faridpur plates of Dhārmmāditya, Gopa-chandra (Indian Antiquary—1910) and Samāchāra Deva (Epigraphia Indica, Vol. XVIII, p. 74-86), of Jayanāga (Epigraphia Indica, Vol. XVIII, p. 60) and Bhāskaravarmman (Epigraphia Indica, Vol. XII and Vol. XIX, p. 115) as well as the discovery of numerous Gupta gold coins from Bengal would bear testimony to a well-ordered system of Government in Bengal during and after the period of the rule of the Imperial Guptas. But early sculpture appears to be almost non-existent in comparison with the state of things which we may reasonably expect in an well-ordered flourishing society under an well-established Government. The reason is probably to be sought in the fact that our collections consist of chance-finds from tanks and ditches of the latest period and from the upper stratum of earth and the above-named old sites have yet to be systematically explored.'

Sixty years have elapsed, but Bhattasali's optimism about the discovery of early stone sculpture from historical sites of Bengal, or for that matter eastern India, remained unsubstantiated. However, the recent discovery of a plaque (Pl. 21.1a & b) of fossilized bone depicting a group of figures on the front side from Mangalkot in District Burdwan of West Bengal indicates the possibility of the find of early sculptures from historical sites of eastern India. This interesting plaque, certainly less refined than the figures on the Bhutesvar railing-pillars of Mathura, is datable to *c.* first-second century A.D. In any case excavations at the early historical sites like Patna, Rajgir, Vaisali, Champa, Sonepur, Chandraketugarh, Tamluk, Rajbadidanga, Mahasthangarh and Mainamati, to name a few, have not yielded early stone sculpture to any appreciable extent. With the exception of Paharpur,[2] stone sculptures found in the excavated sites are negligible. A 'Gupta-period' sculptured sandstone column from Mahasthan,[3] or a seventh-century image of Buddha from Mainamati,[4] does not change the picture. There is little doubt, however, that the evidence of excavations is hardly comprehensive; our understanding of the cultural context is still fragmentary; but one cannot simply explain almost total absence of stone sculptures in early sites as merely accidental. On the contrary, the quantitative, thematic and stylistic range of terracotta figurines indicate the prevalence of powerful art-idiom, catering to the urban milieu and popular taste. Stucco,[5] on a much limited scale, served its purpose; some of the most remarkable images and narrative panels were made of stucco during this period.

It is not unlikely that new evidence on early sculpture of eastern India would come to light in near future and might even alter the chronological/stylistic framework of the present work. A detailed survey of the historical sites of eastern India may, in near future, yield new material. Much of our premises are still based on very meagre data. The problem is further aggravated by the absence of securely-dated pieces from eastern India. Not only are there very few inscribed sculptures, but even the scanty examples are often problematic.[6] Thus, it is well-nigh impossible to work out a meaningful corpus of dated sculptures of eastern India for the period under discussion.

There is yet another crucial issue involved in it. Although most of the earlier authorities have tried to view eastern India as one broad stylistic region, there certainly existed a number of more or less well-defined cultural sub-regions which evolved out of distinct historical traditions. In the context of early Bengal,[7] these sub-regions have been identified with some amount of precision on the basis of donative charters. Similar sub-regions can also be identified in Bihar and the Brahmaputra valley of Assam. As such a monistic point of view is not likely to provide a proper perspective.

Since our understanding is primarily based on 'chance-finds', the known pieces do not always explain the genesis or the formative phases of art-activities in a particular centre or sub-region. It often happens that we come across a very mature example from a site where the earlier centuries are singularly unrepresented. The greater exposure of certain centres in Puṇḍravardhana-Varendra to the main currents of historical development in northern India can well be juxtaposed with the relative isolation of some other sites. All these lend a character to the stylistic evolution of eastern Indian sculpture in the fourth and the fifth centuries, which is far from being either uniform or unilinear.

II

Around the fourth century A.D. the focus of political developments shifted from the western part of the Indian subcontinent to the eastern region. The impact of this shift on art activities cannot, however, be felt to an appreciable extent. Leaving aside somewhat uncertain Chinese tradition, recorded in later times by I-tsing, about Śrī-Gupta's patronage of a Buddhist shrine,[8] we hardly have any information about royal support. But, as revealed by the extant sculptures, patronage was made available on a modest scale at the local level.

Sculptures, not in any significant number, datable to the fourth century A.D. are known from various sites of eastern India. It is pertinent to mention, in this context, that fourth-century sculptures from any part of the subcontinent are astonishingly rare. In 1931, Stella Kramrisch listed 'the dated works of the Gupta period, or such works as were found near dated inscriptions.' Of the two fourth-century sculptures listed therein, Kramrisch pointed out:

'The generally accepted dating of two works hitherto ascribed to the Gupta era is contradicted by their artistic treatment. These are the Buddha from Bodhgaya with the inscription of Mahārāja Trikamāla of the year 64, and a relief of Śiva and Pārvatī from Kauśāmbī.'[9] Four decades later, J.C. Harle[10] reviewed the situation: 'Of dated sculpture, until recently, there has been none properly speaking of the fourth century, or even early fifth, with the exception of some small and rather crude subordinate figures upon two stone carvings. The first is a pillar bearing an inscription of Candragupta II, dated A.D. 381 which has a small nude figure with a staff, probably a mendicant form of Śiva. It is large bellied and dwarfish, its stylistic qualities blurred by these grotesque effects, but it appears to be in the Gupta rather than any recognizably earlier style. The other examples are two small male figures on a fragment of a base bearing a problematical date of 97. The style of these mannikins appears to be a Gupta one. . . . Only three of the caves at Udayagiri have inscriptions containing either a date or the name of a known historical character, in this case Candragupta II. It is not certain, moreover, whether even the sculpture in or outside these three caves is strictly contemporaneous. . . . The excavations of the stupa at Devnimori have revealed a quantity of decorative ornament as well as a number of seated Buddhas, all in terracotta. It seems possible to give these a fairly certain date around 375 A.D. . . . More pertinent are the three practically identical seated Jina figures . . . dug up at Vidisa and bearing largely similar inscriptions of Ramagupta. . . . These Jaina images can thus be dated, at least provisionally, around 370 A.D.'

These, practically, exhaust the list of dated early Gupta sculptures. But the foregoing survey clearly brings out the problem into focus: the scanty materials are dispersed over amazingly vast geographical space—Mathura in the northern plains, Udayagiri and Vidisa in central India and Devnimori in Gujarat with distinctive historical and artistic traditions resulting in diversity of styles, and it precludes the possibility of working out common stylistic denominators valid for the entire north India. As such, our understanding of this formative phase is undeniably fragmentary. The situation in eastern India is not substantially different.

Among the Bihar sculptures, attributed to the fourth century, the Vaishṇava triad (Pls. 21.2-4), represented by Vāsudeva-Ekānaṁśā-Balarāma from Devangarh,[11] a small village in District Nawadah, appears to be the earliest in date. In the execution of these figures a fully-developed plastic treatment is clearly discernible. Recovered from a huge mound, spread over about 50 acres of land on the bank of the Bashela river, the group probably represents a fragment of what could have been the remains of a Vaishṇava shrine. Carved out of buff sandstone, the triad is probably one of the earliest of its kind in India. Although they are invariably frontally poised and almost devoid of any feeling for flexion, yet in the upper portion of their bodies a plastic sensitivity is unmistakably present. But, in contrast, the lower portions, i.e. from waist to feet, betray a kind of stiffness usually found in the Yaksha and Yakshī figures of the earlier period[12] so much so that the discoverer of this triad ascribed them to the second-third centuries A.D. This partial stiffness apart, the figures definitely strike ahead of the Śuṅga-Kushāṇa statuaries, which are, in general, very much bound to their lithic background and totally confined to their respective positions. These three figures from Devangarh are independent forms, and from the decisive representation of their legs and hips they appear to be much more independent of their material background. The sculptures, in spite of an apparent static pose, are on the whole presented in relaxed attitude, a psychological manifestation which is seldom met with in the sculptures of the preceding periods. An overall appraisal of the figures leads us to conclude that the Devangarh triad was executed in the first half of the fourth century A.D., when the classical concepts were in a germinating stage and the sculptors had just begun to experience a new ideal. In such an early stage, it is natural that previous convention would be at work rather forcefully. The early fourth century date of the triad can further be established with reference to an inscribed red stone sculpture with Nāga figures from Rajgir.[13] The date of the sculpture, as indicated by the inscription as well as the style, is the first or second century A.D. but more likely the second. The two groups have comparable traits, both in format as well as in details. The central fold of the lower garment, for example, is, in both cases, given a separate volume and comes down to the pedestal. Rajgir figures, however, show a comparatively terser modelling, while the Devangarh triad is distinguished by softer treatment of the body. Again, the triangular necklace and emphatic waistbands of the former are replaced by *ekāvali* and simpler bands in the latter. The crescent-shaped lip and circular eyes of Rajgir figures give way to fuller lips and regular eyes of the Devangarh triad. Although a transitional piece, the latter registers a progress towards better realization of plastic form.

The persistence of earlier stylistic traits can also be identified in some of the metal images discovered at Chausa,[14] District Bhojpur, on the western extreme of Bihar. The Chausa hoard is of sixteen Jina figures, a *dharmachakra* with *makara* motif and a *kalpavṛiksha*. The Jinas are somewhat enigmatic in their stylistic affiliations, and since their discovery, a wide range of views[15] on their dates have been expressed. This debate tends to overlook the fact that the Chausa Jinas represent more than one stylistic trend and span a reasonable length of time. Some of the Jina figures (Pl. 21.5) show undeniable affinity with the late Kushāṇa idiom of Mathura,[16] while some others (Pl. 21.6) exhibit features which are associated with the fifth-century Gupta idiom of eastern Madhyadeśa.[17] The softer plastic treatment of the body, half-closed eyes in meditation, thick lips and such details as the lost *śiraśchakra* indicated by a tenon, the ornamental pillars and *makara-mukhas* emphasize the existence of a style akin to mature Gupta style. The Kushāṇa features, as noted in some Jina figures, are hardened surface treatment, the open eyes and thin smiling lips. A closer examination of the figures reveals yet a third trend which can be meaningfully established by a number of figures (Pl. 21.7). They neither approximate the late Kushāṇa Mathura style nor anticipate the mature Sarnath idiom. On the contrary, they are much more alive to and aware of the outer world, their faces are enlivened by an essentially mundane smile. This trend is almost free from any canonical injunctions and seems to illustrate a local artistic tradition rooted to a popular perception of divine form. On the whole, the Chausa figures reiterate the obvious links with the major stylistic trends of northern India and growing awareness towards a distinctive local idiom. The chronological limits of the Chausa bronzes, most likely, extend from the early fourth to the early fifth century A.D. and the Mathuraesque types represent the earlier part of the time-sequence.

A transition from the all-pervasive Kushāṇa Mathura and the emerging Sarnath idioms to a still nebulous local idiom took place for the first time in northern Bengal—the historic Puṇḍravardhana-Varendra area. That it should occur in Varendra is somewhat surprising. The area had been exposed to the development of northern India at a relatively early date. The Śuṅga-Kushāṇa style certainly penetrated in its urban centres. Kārttikeya[18] (Pl. 35.16) from Skander Dhāp near Mahasthangarh (District Bogra, Bangladesh), datable around the second-third century A.D., is most likely an import either from Mathura or a related centre. Not surprisingly, the first set of sculptures, produced locally, continues to draw upon the Kushāṇa idiom. S.K. Saraswati,[19] who published them for the first time, argued: 'These four (including a colossal head from Dinajpur) have significant affinities with the Kushāṇa idiom of art and may be tentatively assigned to that age.' On the other hand, Frederick Asher[20] suggests: 'Because the figures are essentially of undistinguished style, iconographic more than stylistic considerations can be adduced to show that the sculptures were made in the Gupta period.' Asher's reasoning carries conviction; but the formal elements certainly bring out a number of features which are likely to be overlooked in purely iconographic consideration.

There is little doubt about the problematic character of these reliefs. But the fact that these are carved out of certain varieties of local sandstone is a further indication of their autonomy vis-a-vis Kushāṇa statuary.

Among the northern Bengal sculptures, the Sūrya image from Niyamatpur (District Rajshahi, Bangladesh) appears to be the earliest (Pl. 21.8). The figure, draped in *udīchyaveśa* as enjoined by the iconographic texts, is in strict frontal pose, but remarkably stunted in form. The legacy of Kushāṇa tradition is manifest in heavier treatment of the long coat and headdress but more distinctly in delineation of different limbs. The facial expression, however, is very much informal and possibly springs from the local tradition. Carved in buff-coloured sandstone, the image of Vishṇu from Hankrail (District Malda) is also frontally conceived, but its execution is much more developed and sensitive (Pl. 21.9). Kramrisch's stylistic appraisal of the figure reveals its distinctiveness. In her words: 'The soft modelling has become compressed into a thin surface. The outline is sharpened and the relief in clearly indicated planes is graduated into depth . . . The accents are placed on the linear effect. The single narrow and rounded fillets of the jewelry and the upavīta are sensitively emphasised. The flat and broad face with its pointed chin has the form of a betel leaf, the long makara-like eyes rise from the root of the nose to the temples. The modelling of the eye is based on the oblique cut, which makes the upper eyelid appear lowered in a sharp angle. It partly covers the large and bulging eye-apple. The mouth is pointed into triangular shape, with corners raised high into the cheeks.'[21]

While the image of Sūrya from Niyamatpur is carved against a stele background, which partially explains its static nature, the Hankrail Vishṇu is distinguished by an almost circular halo. The broad and fully-rounded shoulder is slightly upraised, the drapery is defined by a boldly-carved line towards its lower limit and provided with a descending spiral fold, the ornaments—armlets and *ekāvali*—are similarly boldly wrought. Some of these features can be traced in Niyamatpur figure; the drapery line, for example, is shown by shallow incision, whereas in Hankrail image it assumes a separate volume. The treatment of drapery in the latter became somewhat standardized and reappeared in many contemporaneous and later pieces.

The Sūrya image (Pl. 21.10) from Kumarpur (District Rajshahi), by comparison is a more developed composition in which three distinct sections, made of (i) the principal figure, (ii) the accessory figures along with the charioteer and (iii) the chariot drawn by seven horses are discernible. The central figure is much corroded. In spite of a comparatively-stocky built of the god and almost puppet-like forms of the attendants, a feeling for softer form permeates the composition. The overall arrangement suggests a mature iconographic representation. Both technically as well as conceptually this image strikes ahead of other examples from northern Bengal. From the stylistic point of view the Niyamatpur Sūrya comes first in a chronological sequence, since it retains obvious traits of the earlier tradition. It is followed by Hankrail Vishṇu and then Kumarpur Sūrya, respectively. The first image may be dated to the early fourth century, the second tentatively towards the later half of the fourth and the third stands close to the early fifth century A.D. The discovery of the two Sūrya images of such an early date is by itself a significant event; Niyamatpur and Kumarpur sculptures should not be viewed in isolation. A. K. Maitra,[22] in his pioneering survey of Varendra remains, noted the existence of extensive mounds, ancient tanks and scattered architectural fragments from both the sites—a clear indication of the archaeological potentialities of the area. It is not just a coincidence that one of the early copper-plate charters from this area refers to a temple of Lord Sahasraraśmi and an area called Śāmbapura.[23] This corelation cannot, however, be explained in all its essential details.

A miniature image of Vishṇu from an unspecified site of District Bankura[24] described as a Gupta piece really pertains to a local idiom. We shall have occasion to turn to cognate pieces. But it will suffice to say at this stage that the Bankura example cannot be earlier than the late sixth or early seventh century A.D. in spite of some seemingly early features.

A fragmentary sculpture from Chandraketugarh (District North 24-Parganas)[25] should be considered along with the fourth century sculptures of Bengal, discussed above. It represents a small headless Jina carved out of greyish sandstone (Pl. 21.11). The piece is sadly mutilated without having its palms and much of the legs. Some of the canonical features are, however, distinctly shown; the *kāyotsarga* mode of standing, the *śrīvatsa*-mark on the chest and nudity bespeak its iconic affiliation. It has been broadly dated between the fourth and the sixth centuries A.D., but should more likely be ascribed to the fourth. The sense of austerity and lack of refinement noted in this image place it to a date earlier than that of the better-modelled and elaborate Tri-Tīrthaka Jina stele of Patna.[26] The expansive chest, square shoulders and staff-like format of the hands as well as the massive legs are reminiscent of an earlier idiom, but the shift towards the fourth century is indicated by the sense of modelling revealed through broader hip, the prominent navel and a suggestion of bulge on the abdomen. Most likely it belongs to the first half of the fourth century A.D., and distinctly more generalized in style when compared to the contemporaneous Brāhmaṇical figures of northern Bengal. Can it be explained in terms of the religious affiliation of the figure? An early Jina image is somewhat out of place in the contemporaneous cultural milieu of lower Bengal and its size (13 cm.) coupled with the total absence of Jaina material at Chandraketugarh adds to our doubt about its place of origin. In the context of early Bengal the fourth century experiments remained, by and large, isolated and localized.

The situation is very different in Bihar. Of the three sculptures assignable to the later half of the fourth century, two bear inscriptions. A red sandstone Buddha from Bodh-Gaya (Pl. 21.12) is dated in the 64th year of an otherwise unknown Mahārāja Trikamala;[27] the date, if rendered into Gupta era, places the image to A.D. 384. A black-basalt image of Neminātha from Rajgir has on its pedestal the name of [ma]hārājā[ti]rā[ja] Śrī Chandra.[28] The inscriptional evidence is somewhat inconclusive. During the first phase of archaeological activities in India, scholars like Alexander Cunningham referred the date of the image of Buddha of Trikamala from Bodh-Gaya to the Seleukidan era and arrived at A.D. 152. Subsequently, it has been assigned to the Śaka era (64 + 78 = A.D. 142), Kalachuri-Chedi era (248 + 64 = A.D. 312) and Gupta era (320 + 64 = A.D. 384).[29] The problem, for the greater part, must have been created by the archaistic features of the figure. In an elaborate appreciation of the figure Kramrisch pointed out: 'The Buddha of Bodhgaya belongs to the Mathura tradition. It represents the highest realisation of this school, examples of which are numerous from the second century A.D. . . . The taut quality of the vajraparyanka posture the robe—tight and flat on the body and gathered only over the left shoulder and the left arm in stylized creases—the short neck, and the weighty corporeality, are generally well-known. Despite these common traits, the differences are great. This is striking in the treatment of the torso and, above all, in that of the face. In works of the second century, the fleshy portions, despite their massiveness, appear soft and even flabby. The stomach muscles are defined in such careful detail that the body seems capable of breathing. In the Buddha of Bodhgaya the modeling is more summary, contours are sweeping and hardened. This is also true of the chest. In earlier Kuṣāna sculptures, there is an elaboration of the musculature, and the breasts project, gently swelling from the chest. In the image from Bodhgaya, they merge with its plane in one vaulted sweep. The "naturalism" of the first and second centuries has vanished. Volumetric and linear abstractions now confine the massive corporeality that the Kuṣāna period had preserved from more remote antiquity.

'The face is without counterpart in works of the second century. Its features and expression, as they are rendered here, are unknown in the earlier monuments. The generous, full lips are sharply set off from the slant of the short, broad chin, as well as from the summarily rounded, heavy, hard cheeks. Second-century Mathura is ignorant of the ascetically closed lips that never smile. Though the mouth may smile in an archaic manner, Mathura generally favors features that are nearer to nature. The treatment of the eyes and forehead is the most original feature of the Bodhgaya image. Its grandeur lies in the elongated, boat-shaped slits of the eyes and the wide planes of the lowered upper eyelids. These are extended at the corners, while the lower lid is barely indicated. The eyebrows are cut in steep sideward curves that extend into the broad, high plane of the forehead to give the whole face unity. The earlier period does not know such bold abstractions. They first appear in the fourth century and are further developed in the fifth century.'[30]

Kramrisch, however, concluded that 'the year 312 A.D. would be the date of the Buddha of Bodhgaya,' and 'although it falls eight years before the Gupta period, the Buddha from Bodhgaya may be seen as the point of departure for Gupta art as it evolved out of the Mathura school.' Despite Kramrisch's attempt at chronological precision, the issue remains unresolved because of the total absence of evidence about the prevalence of Kalachuri-Chedi era in eastern India at such an early date.

The Mathura linkage of the sculpture is unmistakable. In a recent work, Asher[31] argues at length about the local origin of the Bodh-Gaya Buddha. The argument is largely off the mark, because the sculptor, in all likelihood, was emulating a Mathura model. He opted for a stone that closely approximates the mottled Sikri stone, and by describing it as *bodhisattva*, the donor linked it conceptually and visually to the ponderous Mathura archetype. But since the sculptor had to work within the artistic parameters of his time, he could not be totally reconciled to an earlier model and responded to the emergent visual trends.

Not surprisingly, the Rajgir Neminātha (Pl. 21.13) anticipates stylistic developments largely independent of Mathura tradition. In spite of R.P. Chanda's reading, it is difficult to associate this figure with the historical personality of Chandragupta II (A.D. 375-413), whose religious leanings were never close to Jainism. On the contrary, hitherto-known monuments of the monarch are all unmistakably Brāhmaṇical in affiliation. While the inscriptional evidence is uncertain, its date and stylistic affiliation can be established on art-historical consideration. The relaxed figure of Neminātha reveals a feeling for softer modelling in marked contrast to the taut surface of the Bodh-Gaya Buddha. From compositional viewpoint the seated figure of the meditating Jina appears to have been conceived in terms of a triangular format reminiscent of the geometric discipline found in the late fifth century Sarnath Buddhas. The selection of stone, *viz.* black basalt, further indicated sculptors' increasing independence even in the use of material which is unrelated to earlier ateliers. An important indication about its date is provided by a comparison with the Vidisa Jinas.[32] Compared to somewhat awkward and unconvincing alignment of hands in *dhyāna-mudrā* noticed in Jinas of the time of Rāmagupta (A.D. 370-75), Rajgir Neminātha is marked by a far better treatment of the limbs. However, the seated figures on the pedestal are sufficiently conventionalized, but the lively central figure stands as a contrast. 'His headdress of tiered curls, his fluttering scarf, clinging dhoti and spirited pose are all represented as subtly and sensitively as anything seen so far in Mathura.' The garment has its parallel in early eastern Indian statuary; both the Hankrail Vishṇu and an attendant figure on the Patna Tri-Tīrthaka Jina stele wear similar kind of flowing costume. The representation of rampant lions are very much different from those represented on the pedestal of the Vidisa Jina figure. Even if the inscription does not give a date, the Jina might be assigned within the reign-period of Chandragupta II, between the closing decades of the fourth and the beginning of the fifth century A.D.

The Tri-Tīrthaka Jina (Pl. 21.14), mentioned earlier, should predate the Rajgir figure. The central figure of Pārśvanātha is a massive form. While there are important points of agreement between Patna and Vidisa Jinas, two distinctive features of figures of the Patna stele are worth careful consideration. The accessory figures on the stele show powerful upraised shoulders and downcast eyes—features associated with some of the early eastern Indian sculptures.

The co-existence and blending of different stylistic traits are indicative of the range of alternatives available to the community of artists. Many of the sites—Bodh-Gaya, Rajgir and Patna, to name a few—were important enough to attract patrons and artists from different cultural and artistic milieu. In a situation as this, some amount of eclecticism is inevitable in the works of art. Elsewhere, as in the isolated centres of northern Bengal, the milieu was more local and the art-idiom much less eclectic.

But at this stage the artists of eastern India accepted locally-available stone as the natural medium—a very definite indication of their autonomy vis-a-vis the earlier traditions. On their part, the artists also strived to accommodate local ethos and visual traditions.

III

There was no magic moment of transition from the fourth century style(s) to that of the fifth. Some of the fourth-century elements did percolate into the art of the succeeding period. The Rajgir Neminātha anticipated the fifth century stylistic development in eastern India. In the neighbouring Madhyadeśa, Sarnath emerged as the major atelier with its influence spreading far and wide. But even before the emergence of Sarnath, many of the central Indian ateliers were sufficiently active. Certainly, all these have significant implications for the fifth century art of eastern India. The geographical horizon of the fifth century art is wider, compared to that of the fourth. A number of new sites could be identified; some of the earlier centres continued to remain active.

A singularly-important piece is the dark-grey stone image (Pl. 21.15) of Narasiṁha of Shahkund,[33] a site along the northern bank of the Ganga in District Bhagalpur. Though the sculpture is only 3′ high, it is a weighty figure, with fully-articulated and rippling, if heavy, form. The powerful rendering of its torso and limbs betrays the immense strength of the deity with the leonine head. His virility can be compared only with the energetic figures of central India, more specifically the Udayagiri figure of Varāha.[34] However, the pronounced curved line separating the breast from the abdomen is reminiscent of the similar device noticed in the Vidisa Jina images[35] bearing the inscription of Rāmagupta. The bold rendering of ornaments—*ekāvali*, armlets and waist-band—and the arrangement of the lower garment are in the fourth-century tradition of eastern India as noted in the Hankrail Vishṇu. Schematic arrangement of hair, however, comes close to the standing Narasiṁha from Eran, central India,[36] datable to the fifth century. The otherwise plain circular halo with incised lines around the periphery is difficult to explain, but has its counterpart in a standing image of Buddha (Pl. 21.19) of Nalanda, assigned to the fifth century.[37] The Shahkund Narasiṁha may not be the only product of what could have been a busy atelier with the stone-quarry located at a close quarter. Frederick Asher refers to 'many Śiva liṅgas all without faces except for one, a granite *Ekamukha Liṅga* that may be ascribed to the late fifth or sixth century.'[38] At any rate, the eastern Bihar sites along the Ganga have very significant bearing on the early artistic activities in eastern India.

The mutilated *chaturmukha-liṅga* (Pl. 21.16) of Vaisali is probably the only other fifth century sculpture from the northern bank of the Ganga. According to a popular tradition, recorded by T. Bloch towards the beginning of the present century, 'the four corners of ancient city of Vaisali are marked by four liṅgas or Mahadevs, of which the two northern ones are visible and the two southern ones hidden. . . . The north-eastern liṅga is an old *Chaumukhi* Mahadev, with four faces which stands inside a pit, evidently the remains of a brick temple.'[39] If the tradition has any strength, then it is not unlikely to find out three more *liṅgas* from other parts of the site. What Bloch did not notice was the existence of an inscription, of which only three fragments could be clearly identified by us. The north-eastern *liṅga* referred to by Bloch is found *in situ* within a pit, evidently the foundation of an early temple, at Kamanchhapra, one of the many villages dotted with relics of the Vaisali complex. The inscription is engraved along the *arghya-paṭṭa*.

D.C. Sircar[40] suggested that the characters of the script may be assigned to a date, around the first half of the fifth century A.D. Even without the inscriptional evidence, its fifth century date can hardly be contested. The image is vigorously carved and exhibits a vitality that is associated with many of the Brāhmaṇical images of central India. The *liṅga* is impressive in dimension. It stands on a circular *arghya-paṭṭa*, 59″ in diameter; the height from the *arghya-paṭṭa* to the crown is 38″ and each face is 23″×17″. Notwithstanding the scars on the faces, it is possible to appreciate the smooth and decisive movement of the chisel. The eastern face is almost smoothened off. The much-corroded western face recapitulates its beauty in the traces of a crown held across the forehead by a beaded band and a serpent necklace. The northern face is relatively better preserved, with the matted hair arranged in a tuft and decorated by a crown with radiating petals. Along the forehead run two bands. The broad, half-closed eyes touch the nose, which, in turn, comes down from below the forehead in a smooth unfaltering line and terminates over the full and fleshy lips. Slightly bent chin and soft cheeks perfectly balance each other. The *karṇa-kuṇḍalas* and beaded *hāra* are carved with an eye to the details. In all likelihood, it represents the *Umā-mukha* enjoined in the text. The southern face definitely depicts the *raudra* aspect which is emphasized by a number of features. The hair-arrangement has a vertical thrust with clearly-defined ridge like parallel lines. Heightening this, the third eye on the forehead is treated vertically, an important iconographic element of the Gupta-period *mukha-liṅgas*. The two eyes, small but turbulent, and the mouth, toothless and stark, convey the terrific aspect in no uncertain terms.

The chronological position of the Vaisali *mukha-liṅga* can be ascertained in relation to the well-known central Indian sculptures, *viz. ekamukha-liṅga* in Cave IV, Udayagiri[41] on the one end and the Khoh *mukha-liṅga* on the other. While it most certainly postdates the early fifth century Udayagiri face which is yet to take the ideated shape associated with mature Gupta classicism, it is, at the same time, almost untouched by the extreme refinement of the Khoh[42] face. Because of the dimensions, it is difficult to explain the Vaisali *mukha-liṅga* in terms of import from the more-productive eastern Bihar atelier. But the stone in which it is carved, i.e. black basalt, is certainly of the eastern Bihar origin, and one cannot rule out the participation of a group of itinerant artists from that area. The glyptic evidence unearthed from Vaisali tends to reinforce the popular tradition about the prevalence of Śaiva cults at the urban centre between third-fifth century A.D. In a situation like this, artists from the neighbouring eastern Bihar would naturally converge at Vaisali, more so because the stone-carving tradition did not appear to have a base at the local level.

Paralleling the eastern Bihar developments, some of the centres on the southern bank of the Ganga continued to remain productive throughout the fifth century. But, Bengal sculpture of this century are few and far between. More problematic, however, is their links and affinities. The Asutosh Museum Lakulīśa,[43] carved out of a reddish stone and reported to have been discovered from an unspecified site of District Murshidabad of West Bengal, raises a number of problems, the foremost of which is its precise find-spot. The figure is considerably damaged. The head and the lower part of the body are totally lost. The face is badly mutilated. The hands, laid on the chest, were probably aligned in the expository gesture. A staff is placed against the left shoulder (Pl. 21.17). Despite its damaged condition, there can hardly be any doubt about the identification of the figure, but its probable date and stylistic affiliation are certainly debatable. The erosion of facial features and the loss of head stand in the way of any attempt at precise dating. One must turn towards certain broad features in order to arrive at a dependable chronological position. The rounded shoulder seems to be slightly upraised and the powerful hands combined with the expansive chest convey the impression of strength disciplined by the Yogic exercises. This sense is reiterated by the solid staff rising to the level of the head. The powerful physical type throbbing with the inner strength is not without its parallel in eastern India. As a cognizable stylistic element, the powerful physical type had assumed a distinctive character, which is best illustrated in the Shahkund Narasiṁha discussed earlier (Pl. 21.15). But the muscular tension which characterizes the Narasiṁha image is not to be found in the Lakulīśa figure. Certainly, it owes its restrained strength to some other source. Apart from the conceptual categories associated with Lakulīśa, a likely source is the Jaina statuary from Rajgir. Beginning with the inscribed Neminātha to the row of six Jinas in the Sonbhandar cave, Jaina images of Rajgir are marked by disciplined strength, which in turn, culminates in the late fifth century Buddhas of Sarnath. As we have argued earlier, the Rajgir figures in a way anticipate the Sarnath Buddhas.

The Asutosh Museum Lakulīśa stands somewhere between the Shahkund Narasiṁha image on the one end and Rajgir Jinas and the late fifth century Sarnath Buddhas on the other. While the articulation of physical strength as manifest in the Narasiṁha image is absent in the Lakulīśa figure, it does not possess the poise and refinement of the Sarnath Buddha. One may compare, for example, the smooth downward curve of the shoulders of Sarnath Buddhas with slightly-raised shoulders of Lakulīśa which breaks its natural course. The slight bulge around the navel is met with in eastern Indian sculptures. Again, the broken halo is almost undecorated, the only element of embellishment being the incised lines along its border. Adopting, what appears to be an evolutionary scheme, one reaches at the middle of the fifth century A.D., as the most probable date for the Lakulīśa.

Rajgir continued to remain an active atelier partly due to Jaina patronage. A row of six Tīrthaṅkaras carved on the Sonbhandar eastern cave[44] speaks of a meaningful understanding of spatial organisation in relief-composition of the six figures; five (Pl. 21.18) are carved on one side of the entrance and the sixth on the other. The quality of the stone as well as the uneven surface of the rock appears to have contributed to the organisation of the reliefs. This explains why all the figures are not of same size, and the straightline sequence is suddenly broken with the fifth figure which is placed on a slightly higher level. The first two standing figures can be identified as Padmaprabha on account of the incised lotus below their feet, the third figure as Pārśvanātha because of the serpent seat. But the presence of two elephants on the pedestal of the throne suggests the possibility of identifying it as Ajitanātha. The fourth and the fifth figures, both seated Jinas, depict Mahāvīra with the lion flanking the *chakra* at the base. All the Jinas share certain features in common and show an almost identical scheme of presentation of the accessory details. R.N. Misra[45] sums it up in the following words: 'the Jinas are either standing or seated and in all the cases accompanied in tiers from top to bottom by (a) flying figures on either side holding garlands or simply folding the hands in adoration, (b) attendant figures standing on each side, holding *cauri* and (c) two seated Jinas, one each on either side, in *dhyānamudrā.*' In spite of relatively-smaller proportions, the figures are distinguished by powerful forms. The attendants are conspicuous by flexions of their bodies. These, combined with the compositional arrangement, remind one of the late fifth century Sarnath stele depicting scenes from Buddha's life.[46] The reliefs, however, predate the late fifth century inscribed images of Buddha of Sarnath, both structurally and conceptually. Connections with the Mathura tradition are discernible; broad shoulders of the Jina are clearly derivative of the late-Kushāṇa physical type. Similarly, the rigid *kāyotsarga* pose is in sharp contrast to the *déhanchement* of the Sarnath Buddhas.

Close to Rajgir, Nalanda began to emerge as an important monastic centre from the fifth century. As discussed earlier, imperial support explains the steady growth of Nalanda. Hiuen-Tsang's account is supported by the discovery of seals of Narasiṁhagupta, Kumāragupta II, Vainyagupta and Vishṇugupta.[47] At least, one of the important structures, *viz*. Stūpa 3, dates from the early Gupta period.[48] And, the introduction of stucco as an art medium, most probably, dates from this time.[49] Admittedly, there is a dearth of stone sculptures datable to pre-seventh century. But as early as 1927, Coomaraswamy's[50] discerning eyes identified the possibilities of an early art-tradition at Nalanda 'where nothing antedates the fifth century.'

However, it is only in recent times that the pre-seventh century art of Nalanda has received some attention from the art-historians. And a number of stone sculptures, ignored in earlier writings probably as products of perfunctory craftsmanship, are being considered in proper perspective. Certainly, the most important sculpture of this genre is a rather small image (Pl. 21.19) of Buddha (21·5 cm. high),[51] carved in dark-grey stone, probably of local origin. There is little doubt that the figure draws heavily upon the Mathura tradition; its broad shoulders, short neck and powerful limbs can be explained only in terms of the late Kushāṇa Mathura style. Even such details, as retaining a portion of the back-slab around the base, has its parallel in fourth century Mathura. But, at the same time, one cannot overlook the Sarnath connections, more specifically with the three inscribed late fifth century Buddhas. The treatment of drapery, transparent and without folds, except those around the ankles, is strongly reminiscent of Sarnath Buddhas. Also strikingly similar is the manner of tying the lower garment which caused a deeply incised line around the waist and a slight swelling of the stomach below the navel. Thus, the figure raises certain problems relating to the positions of Mathura and Sarnath vis-a-vis the emerging Nalanda atelier. Similarly problematic is the halo: plain circular and bereft of any decorative elements except for two deeply incised lines along the perimeter. Plain halo, though not altogether unknown in Gupta art, is something of a rarity in both Mathura and Sarnath. One of the unadorned halo is seen in the Besnagar Balarāma, assignable to the early fifth century. As observed earlier, the Shahkund Narasiṁha is distinguished by a halo with incised lines on the perimeter.

Despite its links with Mathura and Sarnath traditions, the Nalanda Buddha is very much local in overall effect. It most certainly does not present the refinement of Sarnath Buddhas of the late fifth century, nor is it comparable to the precision of the contemporaneous Mathura images. One possible explanation might be sought in artists' attempt at reconciling very many different stylistic traits in a particular work. It has been argued that the 'general style of the sculpture . . . does not bear the hallmark of Mathura to the exclusion of Sarnath or vice versa. . . . The juxtaposition of stylistic idioms in the composition reflects his eclecticism, while the partial clumsiness of the work acts as an index to the artisty of the monastic establishment at the time.'[52]

The Nalanda Buddha predates the three inscribed Sarnath Buddhas,[53] ranging in date between A.D. 473/474 and 476/477. By far the two most distinctive elements which suggest a date prior to those three Buddhas are the lack of refinement and a different kind of mood. It neither possesses the extreme refinement of the Sarnath pieces, nor does it convey the psychological air connected with the Sarnath milieu. For all practical purposes, it represents a local attempt at blending elements, drawn from two major ateliers, at a time when the legacy of the Kushāṇa Mathura idiom is a force to reckon with and the Sarnath idiom is fast spreading its roots to eastern Indian soil. In the long run, Sarnath would play a decisive role in the making of the eastern idiom, but the artist is yet to accept the Gupta idiom of Sarnath in all its essential details.

The historical context of radiation of an idiom is difficult to explain, more so in eastern India where the evidence is scattered over a wide geographical space. An important index towards ascertaining the spread of Sarnath idiom is a number of sculptures datable between the fifth and the seventh centuries A.D. At Chausa, Sarnath kind of throne-back decorative scheme was attempted. The Nalanda artists of the formative phase experimented with Sarnath and non-Sarnath elements. But, at certain centres, typical products of the Sarnath ateliers were imported probably as the central figure of a Buddhist shrine, or as model to be emulated by the local carvers. It is in this context that the Buddha image of Biharail[54] (District Rajshahi, Bangladesh) assumes importance. As the name indicates, the place owes its identity to a *vihāra*, the remains of which are buried in one of the numerous mounds scattered over the village. A trial trench laid on the Rājbāḍī mound revealed the remains of a structure showing rows of cells around a central courtyard and an image of Buddha, carved in Chunar sandstone. In spite of S.K. Saraswati's spirited defence in favour of the local origin,[55] it is, beyond doubt, an import piece. However, R.D. Banerji observed in 1933: 'This image is remarkably identical in type with the Buddha images discovered in Sarnath . . . Had the findspot not been correctly noted, one may have supposed easily that this specimen was found at Sarnath instead of Rajshahi.'[56] The nearest parallel to this figure (Pl. 21.20) is the Sarnath Buddha of A.D. 474 not only in terms of overall appearance, but in matters of such details as the deeply-incised line along the waist and the arrangement of the pleats of the drapery below the left hand. The halo is almost totally mutilated, but the decorative scheme in the extant fragment seems to be similar to that of the Sarnath specimen. Thus, a late fifth century date seems to be most plausible for the Biharail Buddha. Comparable in many ways to the Sarnath and Biharail figures is a Buddha head excavated at Kumrahar, the ancient site of Pāṭaliputra. Carved in sandstone, the Kumrahar head (Pl. 21.21) is unmistakably derivative of the late fifth-century Sarnath idiom. The face with full and fleshy lips, half-closed meditative eyes and hair in conventionalized curls with a central protuberance—all bespeak its affiliation. But what distinguishes the face from the standard Sarnath type is the treatment of eyes—slightly opened—which seems to be responsive to the outer world. Although the stratigraphic evidence about the piece is far from satisfactory,[57] it should not be later than the late fifth-century images of Buddha of Sarnath.

The closing decades of the fifth century in eastern India is also marked by the appearance of a new material at Rajgir and Bodh-Gaya, *viz.* stucco. Contrary to the prevalent misconception, stucco was widely used in eastern India.[58] Archaeologists have taken note of the stucco-work at Nalanda, in the third and fourth phases of the Stūpa 3. Assigned to the early Gupta period, the evidence from these two phases are of crucial importance in the genesis and development of stucco statuary tradition in eastern India. Admittedly, the stratigraphic/chronological sequence of phases three and four at Stūpa 3 cannot be determined with precision, but their early date can hardly be contested.

Initiated by the Gandhāra and Indo-Afghan schools, stucco statuary tradition remained quite popular in north-west till the fifth century A.D. Its use as an art-medium in north Indian plain remained extremely restricted. In course of 1914-15 excavations at Sarnath, Hargreaves discovered a number of stucco heads, which he assigned to 'the late

Gupta or early mediaeval period.'[59] If Hargreaves' dating is accepted, then the origin of stucco tradition in Bihar cannot be explained with reference to Sarnath. But, Sarnath did play an important role in shaping the style of stucco imagery of the seventh century. And, it is in this context, Rajgir stucco figures assume significance.

Excavated by T. Bloch in 1905-06,[60] the stucco figures adorn the outer wall of a hollow cylindrical structure, popularly known as Maṇiyār Maṭh. All the figures are now totally obliterated; a set of early photographs preserved in the Archaeological Survey of India and Bloch's report are the most dependable sources. The sectarian affiliation of the monument is problematic; in spite of a recent attempt at explaining it as a *pañchāyatana* shrine,[61] the issue remains unresolved. One may legitimately question the primacy of Nāga imagery in what is intended as a syncretistic monument. The appearance of the dancing (Naṭarāja ?) form of Śiva and the iconographically standardized Vishṇu rules out the possibility of assigning this monument to a period 'long before the iconography is formalised.' Given the present appearance, it represents certain fully-evolved concepts and their visualization, but beyond that nothing can be surmised.

The date of these stucco figures had long been debated. In his pioneering work, V.A. Smith[62] assigns these to the 'Gupta age'. Coomaraswamy[63] suggests fifth century. And Stella Kramrisch[64] favours a sixth century date, a view shared, on different grounds, by Sheila Weiner,[65] Pramod Chandra[66] and Frederick M. Asher.[67] What strikes us most in the figures is an overpowering sense of refinement associated with the Indian classical tradition. Each of the figures merit individual appreciation. The Nāgī shows a feminity expressed through soft and nubile torso, an almost imperceptible stooping stance and subtle transition of the body-planes. A faint smile enlivens the face. Vishṇu, by comparison, is remarkably potent, his face illuminated in a benign smile. The upraised shoulder and arrangement of the lower garment are in the established stylistic conventions of eastern India. Naṭarāja, in its turn, portrays a dynamism which is most unusual in the sculptures of this period. The Nāga (Pl. 21.22) with his gaze, cast downwards, conveys a sense of strength and poise, as it were, each balancing the other.

Attempts have been made to explain the stylistic elements of these figures in terms of Sarnath developments. But the added grace and pliability of the figures are achieved, in no mean measure, due to the medium. Compared to the late fifth century Sarnath Buddhas, the stucco figures are certainly 'weighty and earthbound'. The downcast gaze of Vishṇu and Nāga figures is an important pointer. As to the refinement of the figures, it must be pointed out that there exists a qualitative difference between the refinement of the Rajgir stuccos and the 'linear abstraction' of Sarnath statuary of the time of Kumāragupta-Budhagupta.

Along with this, we must consider the absence of stucco statuary tradition at Sarnath during the fifth-sixth centuries A.D. or before. The available evidence tends to suggest the existence of stucco statuary tradition in Bihar and Bengal prior to its development at Sarnath. Thus, a specific Sarnath linkage is difficult to argue. But, in view of the mobility of the artisans and craftsmen and their ability to adopt new material, one cannot altogether rule out extraneous influence. But, at the present state of our knowledge, we cannot pinpoint the stylistic sources of Rajgir figures. As to their dates, meaningful points of reference are provided by rather slim and graceful early seventh century stucco figures of Stūpa 3 at Nalanda[68] which are clearly dependent on Sarnath model, and the relatively heavy-set Jinas of Rajgir,[69] assigned to the sixth century A.D. Rajgir stuccos share none of the slimness of the Nalanda figures, nor do they approximate the heaviness of the Rajgir Jinas. As such, they should be placed toward the middle of the fifth century A.D.

Experiments with the new medium, *viz.* stucco, did not remain confined to Nalanda-Rajgir area. At Bodh-Gaya, it was adopted with some enthusiasm, as would be evident from a number of seventh century stucco sculptures totally re-worked, on the wall of the Mahābodhi temple. But, as early as the mid-fifth century, the base of the early Vajrāsana was decorated by a number of stucco figures—*gaṇas* and lions,[70] now completely obliterated. Cunningham must have seen them before 1879. The photographs published in his account shows four panels, recessed and projected alternately. Within the recessed panels are seen lions in profile and seated on their haunches, while the projected panels to the right has a pot-bellied *gaṇa* distinctive in its Gupta hair-style, an *ekāvali*, a band running on the belly and the wristlets. With his hands raised the *gaṇa* seems to be carrying the weight of the structure. The other *gaṇa* is similarly dressed, the only difference being the position of his hand. He has the right hand raised to support the weight and the left planted at the base. The portly figures in their conviviality recall the frolicking *gaṇas* of the Bhumara temple,[71] ascribed to the second half of the fifth century A.D.

The closing decades of the fifth century produced three inscribed images of Buddha at Sarnath, ranging in date between A.D. 473/474 and 476/477.[72] Sarnath atelier became a major source of influence in eastern India in the next two centuries.

John M. Rosenfield argued[73] that there had been substantial increase in artistic activities at Sarnath and Buddhist centres of eastern India from the middle of the fifth century. Building activities at Nalanda[74] was accelerated, probably through royal patronage. At Bodh-Gaya[75] experimentations in emulative carving of railing pillars would begin shortly. Puṇḍravardhana[76] witnessed the construction of temples for primeval gods Kokāmukhasvāmin and Śvetavarāhasvāmin. In the Gauḍa country,[77] the Raktamṛittikā-mahāvihāra was still in a nascent stage. The Brahmaputra valley[78] experienced for the first time excavation of cave temples for Bhagavata Balabhadrasvāmin. The experiences of the fourth and fifth centuries were carried forward in the next two hundred years. The geographical horizon of artistic activities expanded, and during the next two centuries new centres developed throughout eastern India.

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22

Art and Hindu asceticism: Śiva and Vishṇu as masters of Yoga[1]

Michael W. Meister

We tend to think of asceticism as self-denial, and self-denial as mortification. In India, I should rather see asceticism as self-fulfilment. The athleticism of the Greek word *askēsis*, meaning "exercise, practice, training", has not been lost in the mental and physical discipline of Hindu *yoga*.

Divine beings in India share this athletic asceticism, though the duality suggested by Wendy Doniger O'Flaherty's renaming of her study on 'Asceticism and Eroticism in the Mythology of Śiva' as 'Śiva: The Erotic Ascetic' confuses the issue and requires some restatement.[2]

The "ascetic erotic" in India, in fact, need not be a contradiction. Vishṇu and Śiva as well as most other forms of divine manifestations in India centre their mythology and imagery on yogic control in contact with an underlying divine orderliness, however messy the myths and images may seem to us.

In art, images of actual ascetics have survived from as early as the first few centuries B.C. (if we leave aside the controversial "proto-Śiva" seals from the Harappa civilization) to the Mughal period and beyond.[3] The fascination of this Hindu "other", or its "alternative life-style", as Romila Thapar has described it, has, perhaps in all periods, both attracted and threatened.[4] Its claim to *tapas*, or sacred heat, gave it power; its centred self-control could form a model for religious practice; and yet its extreme living practitioners in many ways remained socially liminal, if not outside the pale.[5]

If a Western model for ascetic extremity in Indian art might be the famous emaciated image of the fasting Buddha from Gandhāra,[6] the standard image of yogic control—Buddhist or otherwise—in India has rather been one of full health. Mind-centred asceticism did not *require*—though it might have been demonstrated by—physical austerities. Emaciation may have been an appropriate indicator of a horrific goddess—Kālī or Chamuṇḍā, for example,—but Pārvatī, when performing austerities (though she is, in some images, shown standing on one leg in conformance to her deep ascetic discipline) is always shown in full flowering health[7] (Fig. 1).

The corporeal shell of the Jaina *siddha*, Bāhubalī, is shown performing austerities, not through the image of a mortified body, but by the vines growing up his legs toward his disciplined torso and by the ant-hills at his feet.[8]

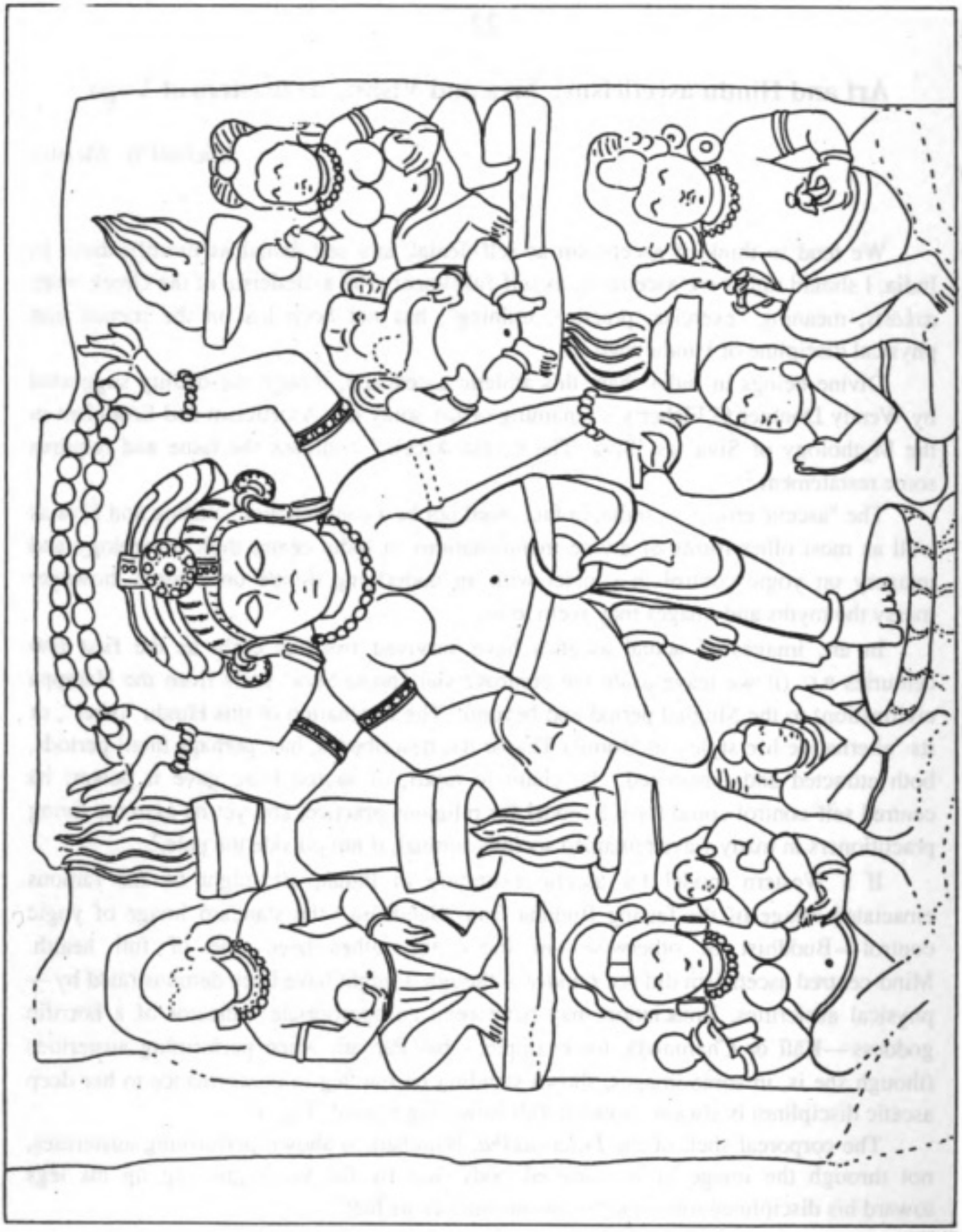

Fig. 1. *Pārvatī-pañcāgnitapas*, c. seventh century A.D., now in A.S.I stores, Chittor, Rajasthan (drawing courtesy: M.W. Meister)

Mortification by human *ṛishis* usually is linked to their acquisition of power through *tapas*, which can then be put to use claiming special benefits, as in the stories of Bhagīratha's or Arjuna's penance. Śiva and Vishṇu, however, as masters of *yoga* (Śiva-Yogīśvara and Yoga-Nārāyaṇa), like Buddha or the Jinas, are shown with healthy well-formed bodies, inwardly ascetic (Pls. 22.1, 2 & 3).

Lakulīśa—Śiva's divinized but once-living saint from Karvan (Gujarat) in the early centuries A.D.—is often shown sharing Śiva's most prominent sign of ascetic control, the erect phallus. Yet, as an active and proselytizing—if ascetic—human representative of Śaivism, he is shown often more in the pose of a king or warrior than that of a *yogin.*[9] The *vīrastambhas* that honour fallen heroes in India suggest a further kind of active asceticism—the complimentary antipode to Lakulīśa's form of austerities (Pl. 22.4)—by which death in battle is a form of self-giving that leads directly to—*moksha.*[10]

On temples in Orissa, Lakulīśa, moreover, sometimes is shown on the front of temples above the activating Śiva image in the temple's fronton. Such a position can suggest something of the important role asceticism has played in the hierarchy of Hindu self-realization.[11]

At the international "Discourses on Śiva" symposium organised in Philadelphia some years ago (1981), a considerable controversy arose over T. S. Maxwell's analysis of a Kushāṇa-period image known in the archaeological literature as the "Nānd liṅga".[12] Maxwell had pointed out that the standing images on the shaft of this pillar were primarily Vaishṇava, that the head was recessed, not tumescent, as for a Śivaliṅga, and that the upper four squatting images could not *simply* be taken as "Lakulīśa", as many had before him.[13] His analysis also tied the image to early Vaishṇava meditational texts; suggested the image was a "meditational construct" (an actual mechanical *yantra*); and saw the upper four seated figures as representing ṛishis or "ṛishi-hood", that state toward which the meditator aspired. I remember the fine Vaishṇava and scholar, C. Sivaramamurti, protesting 'but *how* could a *human figure* be put above the head of a divinity?'[14]

This is, however, perhaps the point. Hindu worship is *active* and has a *direction.* If *yoga* is modelled on the semiotic unity of *ātman* and *brahman*, this identity is realized through the active pilgrimage a human takes by means of his or her "ascetic" practice.[15] Divinity itself is static, becoming active in this world. The ascetic, on the other hand, actively ascends through meditation beyond this world.[16]

Sages, often with beards, are shown with some frequency as attendants and worshippers in sculptural representations of Hindu divinities. They carry out rituals around *liṅgas*; stand as observers to cosmic events; attend at temple doorways. Pārvatī shown performing *pañchāgnitapas* is surrounded by four flames (Fig. 1) of which she, at the centre, becomes the fifth.[17] In a number of other images, four ascetics act as the flames around a central figure (disciples around Lakulīśa; attendants to a Jaina sage, as at Deogarh; or of Agni, the central flame, as at Khajuraho).

Of course, the pretensions of living sages (only of *other* sects) were also sometimes pilloried in India, their asceticism called into question, as in several of the intentionally flagrant images placed on temple walls at Khajuraho or the slightly later play called *Prabodhachandrodaya* by Kṛishṇamiśra.[18] But look also at the hierarchy of Agni to other ascetics on the Lakshmaṇa temple's southern wall.[19]

On the Lakshmaṇa temple, the lowermost level of this *kapilī* wall contains specifically Śaiva imagery, including a panel of *maithuna* (copulation); the next level up shows rather more subdued Vaishṇava imagery; and the uppermost level shows Agni/Brahmā—the personification of the sacrificial fire—surrounded by four ascetic sages. This is the direction both of active transformation and ascent.

A somewhat less erotic example of this hierarchy I find in the famous relief usually called "the descent of the Ganges" at Mahabalipuram.[20] Around a Vaishṇava shrine set on the bank of the Ganga, probably near Varanasi, are shown a number of sages engaged in a variety of ascetic practices, some obviously less devotional than others. As a point of humour (and honour) the artist has demonstrated the scepticism by which many ascetics in India may often be greeted by showing on the opposite bank an "ascetic" cat, performing austerities, being paid obeisance by his devoted mice.

The main sage in this relief, however, is shown as the epitomy of true inward devotion, the *active searcher* as opposed to the *static image* of divinity in the shrine's sanctum. Axially above this shrine-image stands an austere ascetic, successfully using his *tapas* to call Śiva to him in the Himalayas. It is his *tapas* that provides the heat of transformation, and his human body, not Śiva's, that axially ascends beyond the pinnacle of the earth-bound Vaishṇava shrine.

A further example of this structure I wish to emphasize might be the late-Gupta Vishṇu temple at Deogarh, which provides, on its back wall, an image of the human sage, Nara, in deep discussion with the four-armed divinity Nārāyaṇa, somewhere in the high Himalayas.[21] Though some question has been raised about the direction of ambulation for this shrine, if one moves in proper clockwise *pradakshiṇa* order, the first image on the north wall is that of Vishṇu rescuing a king—in the form of an elephant—from a water-beast, here shown as a *nāga*, who has captured him in a lotus-pond.[22]

The *nāga* king and his queen pay obeisance to the apparition of Vishṇu riding on Garuḍa. Above Vishṇu's head, *vidyādhara* couples hover, holding a crown. In my view, this mythic event presents Vishṇu as protector of this world; the *nāgas* as ensnaring *māyā*; and the lotus-pond as the originating waters, thus also the earth. Vishṇu, as Gajendramoksha, shows the way toward ultimate liberation, but, as *trilokyamāna*, very much still entangled with this world.

On the east wall are discoursing figures of Nara and Nārāyaṇa, human and divine sages set within the liminal realm of the Himalayas (two other lean ascetics attend to either side). Nārāyaṇa has four arms, holding a bud to his chest, a rosary, a ladle, and a water-pot, with long tresses and knotted hair as shown also by Śiva as a Himalayan master of *yoga*. Nara wears an antelope-skin and also carries a rosary. Below their feet, a deer and a lion lie down together. Above both their heads are tree branches and a *vidyādhara* couple, with a central *yakshī* figure turning toward Nārāyaṇa. Further above are two additional *vidyādhara* couples with Brahmā at the centre.

This scene I see as the meeting of divinity—made manifest in Nārāyaṇa—and humanity (Nara/"man") taken to the furthest possible state of present transformation: that distant point to which Hindu worship, and pilgrimage, can carry its practitioners *within* this world.

On the south wall is Vishṇu Anantaśayana, Śesha's hood sheltering an awakening Vishṇu; Brahmā as "creator" is seated on a lotus growing at the centre. Below are two demons and Vishṇu's personified weapons ready to take up their guarding role. In a line with Brahmā, hovering in attendance, are Skanda, Indra and Umā-Maheśvara.

This scene is an explicit mythic representation of the moment of cosmogonic *re*generation: human transformation carried to a much higher level of creativity. In the central sanctum of the Deogarh temple was once possibly an image of Viśvarūpa—Vishṇu as cosmic progenitor.[23] The most iconographically-explicit example of this form is perhaps that from Changu-Narayana, Nepal, where the vertically proliferating figure of Viśvarūpa stands as cosmic axis above the reclining figure of Vishṇu-Anantaśayana (Pl. 22.5).[24]

Nārāyaṇa, the sage, produces Nārāyaṇa the cosmic progenitor. The practice of asceticism itself creates the transformation. The most pregnant image of ascetic transformation thus becomes one of generation, as in images of Viśvarūpa or the famous seven-fold Śiva from Parel.[25]

The form of Viśvarūpa-Vishṇu found in other parts of western India, contributing to the form developed at Deogarh, shows Vishṇu with his knees drawn up, like the petals of a lotus, in a birth-giving posture.[26] Śiva also, in early images of him as Yogīśvara, master of *yoga*, sits above a lotus, with *nāgas* on either side of the stalk below (Pl. 22.1).[27]

I may be permitted to carry this imagery one step further by referring to a goddess named by Stella Kramrisch as "Aditi-uttānapad".[28] She lies with her back to the ground, her legs pulled up in a birthing posture—but with the feet turned back toward the ground in a rooted, essentially yogic, posture; she has a lotus flower rather than a head. Perhaps I push things too far to say that this is an ascetic image, yet to me the essence of asceticism in India is just this thrust to generate a new being! To *trans*-form is to generate; thus to give birth is to trans*form*.

Śiva and Vishṇu, as masters of *yoga*, are shown seated on centred lotus thrones, born of the earth, participants in the act of cosmogonic origination. This iconography is shared by the Buddha, Jinas, Lakulīśa, Yoga-Nārāyaṇa as well as Yogīśvara Śiva, and places the centred image at the navel of cosmic creation.[29] Only through a relationship to such a constant process of cosmic as well as self-regeneration can the seeming self-mortification of asceticism actually be fulfilled.

Notes and references

1. An earlier version of this paper was prepared for a seminar on 'Ascetics and Asceticism in India: A Comparative Study', sponsored by the Department of Religion at the University of Florida, Gainesville.
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3. Doris Meth Srinivasan, 'The So-called Proto-Śiva Seal from Mohenjodaro: An Iconological Assessment', *Archives of Asian Art*, 29 (1975-76), pp. 47-58; Lohanipur torso of the third century B.C.: Susan L. Huntington, *The Art of Ancient India* (New York: Weatherhill, 1985), Pl. 4.11; Pramod Chandra, 'Hindu Ascetics in Mughal Painting' in *Discourses on Śiva*, ed. Michael W. Meister, (Bombay: Vakils, Feffer & Simons, Ltd., 1984), pp. 312-16.
4. Romila Thapar, 'Renunciation: The Making of a Counter-culture?' in *Ancient Indian Social History* (New Delhi: Orient Longman, 1978), pp. 63-104.
5. The earliest shelter provided for a religious order that survives in India, however, was that of rock-cut "huts" for Ājīvika ascetics located in the remote hills at Barabar (Bihar), sponsored by the Maurya royal family in the third century B.C. See Michael Meister, 'Asceticism and Monasticism as Reflected in Indian Art' in *Monastic Life in the Christian and Hindu Traditions*, ed. Austin B. Creel and Vasudha Narayanan, (Lewiston, N.Y.: The Edwin Mellen Press, 1990), pp. 219-44.
6. Huntington, *op. cit.*, Pl. 8.20.
7. For an early image of Pārvatī's austerities from Ellora's Rāmeśvara cave, *c.* A.D. 600, see *Discourses on Śiva, op. cit.*, Pl. 201.
8. Sravana Belgola, Karnataka: see Huntington, *op. cit.*, Pl. 22.3.
9. U.P. Shah, 'Lakulīśa: Śaivite Saint' in *Discourses on Śiva, op. cit.*, pp. 92-102.
10. Michael W. Meister, 'The Hero as *Yogin:* A *Vīrastambha* from Chittor' in *Dimensions of Indian Art: Pupul Jayakar Seventy*, ed. Lokesh Chandra and Jyotindra Jain, (Delhi: Agam Kala Prakashan, 1986), pp. 283-86; Hans van Buitenen, 'The Indian Hero as Vidyādhara' in *Traditional India: Structure and Change*, ed. Milton Singer, (Philadelphia: American Folklore Society, 1959), pp. 99-105.
11. Debala Mitra, 'Lakulīśa and Early Śiva Temples in Orissa' in *Discourses on Śiva, op. cit.*, pp. 103-18, Pls. 114-19.
12. T.S. Maxwell, 'Nānd, Parel, Kalyānpur: Śaiva Images as Meditational Constructs' in *Discourses on Śiva, op. cit.*, pp. 62-81; R.C. Agrawala, 'Chaturmukha Śiva-liṅga from Nānd, near Pushkar, Rajasthan', *Purātattva*, 2 (1968-69) pp. 53-54.
13. R.C. Agrawala, 'Two Standing Lakulīśa Images from Rajasthan', *Journal of the Oriental Institute*, 14 (Baroda, 1965), p. 388.
14. Sivaramamurti's significant participation in the Śiva Symposium is represented by his essay, 'Forms of Śiva in Sanskrit Sources', *Discourses on Śiva, op. cit.*, pp. 182-90.

15. Mircea Eliade, *Yoga, Immortality and Freedom*, second ed. (Princeton N.J.: Princeton University Press, 1969).
16. Ananda K. Coomaraswamy, '*Svayamātṛṇṇā*: Janna Coeli' in *Coomaraswamy, I.: Selected Papers, Traditional Art and Symbolism*, ed. Roger Lipsey, (Princeton, N.J.: Princeton University Press, 1977).
17. [As far as I am aware, the *pañchāgnitapas* is undertaken in the midst of four burning fires and gazing constantly at the blazing sun (considered as the fifth source of intense heat, fire) of the summer season. As a corroboration I quote below Verse 20 of the *Kumārasambhavam* describing Pārvatī's austere penance in the following words: *śuchau chaturṇāṁ jvalatāṁ havir-bhujāṁ śuchi-smitā madhyagatā sumadhyamā* | *vijitya netra-pratighātinīṁ prabhām = ananya-dṛishitiḥ savitāram = aikshata* || Editor].
18. Pramod Chandra, 'The Kaula-Kāpālika Cults at Khajuraho', *Lalit Kalā*, 1-2 (1955-56), pp. 43-65; Michael W. Meister, 'Juncture and Conjunction: Punning and Temple Architecture', *Artibus Asiae*, 41 (1979), pp. 226-34; L.K. Tripathi, 'The Erotic Scenes of Khajuraho and Their Probable Explanation', *Bhāratī*, 3 (1959-60), pp. 82-104; Devangana Desai, 'Placement and Significance of Erotic Sculptures at Khajuraho' in *Discourses on Śiva, op. cit.*, pp. 143-55; *Prabodha Candrodaya of Kṛṣṇa Miśra*, translated by Sita Krishna Nambiar, (Delhi: Motilal Banarsidass, 1971).
19. *Discourses on Śiva, op. cit.*, Pl. 152.
20. Huntington, *op. cit.*, Pls. 14.18-19.
21. Huntington, *op. cit.*, Pls. 10.26, 30.
22. Huntington, *op. cit.*, pp. 207-11, proposes *apradakshiṇa* for west-facing shrines; in the case of Deogarh, this has recently been refuted by Dennis Hudson, who refers to Pañcharātra doctrine. The three panels are illustrated in Huntington, Plates 10.29-31.
23. T.S. Maxwell, *Viśvarūpa* (Delhi: Oxford University Press, 1988), pp. 233-48, discusses an "experimental" image of Viśvarūpa from Deogarh he dates to the sixth-seventh century or later while noting its "archaising tendency" in details "copied directly from the panels of the famous 'Daśāvatāra' Vishṇu temple" (p. 235). He comments on the use of the image that (p. 233): 'This sculpture shows every sign of having been a true...experiment in the sense that it seems unlikely ever to have been intended for worship in a temple...[I]t seems likely that the project...to develop an icon suitable for worship at Deogarh was discontinued after this initial failure.'
24. Krishna Deva, *Images of Nepal* (New Delhi: Archaeological Survey of India, 1984), Pl. 27; he dates the image to the eighth century.
25. Maxwell, *Viśvarūpa*; *idem*, 'Nānd, Parel...'
26. Schastok, *Śāmalājī*, Figs. 26, 34, 38; Maxwell, *Viśvarūpa*, pp. 144-85.
27. As in the seventh-century image at Mandor: *Encyclopaedia of Indian Temple Architecture*, Vol. II, Part 2, *Period of Early Maturity* (Delhi: Oxford University Press, 1991), Pl. 273.
28. Stella Kramrisch, 'An Image of Aditi-Uttānapad', *Artibus Asiae*, 19 (1956), pp. 259-70.
29. *E.I.T.A.*, II. 2, *op. cit.*, Pls. 307 (Buddha/Supārśvanātha), 349 (Yoganārāyaṇa); *Discourses on Śiva, op. cit.*, Pls. 92, 117, 123-27 (Lakulīśa).

23

An image of Kevala-Narasiṁha from Mothadaka village, District Guntur (Andhra Pradesh)

I.K. Sarma

A greenish limestone flat rectangular stele, 70 cm. high, 34 cm. broad and 5 cm. thick, was found in the Mothadaka village in the Tadikonda *maṇḍalam* of District Guntur (Andhra Pradesh). This is a surface-find within a private land looked after by Alluri Madhava Rao of the Mothadaka village.[1] The sculptured part measures 45 cm. in length which includes its padestal, 9 cm. high. The figure is in three-fourth relief. The unworked rough lower part of 25 cm. was meant for fixing the image in position. Datable to about the second century A.D., the image is now in Site Museum (Acc. no. 1053) at Amaravati.

The Image

The image (Pl. 23.1) is frontal, seated in royal fashion, *rājalīlāsana*, over a low *mañchaka* type of pedestal. It is two-armed; the right hand shows up a *prayoga-chakra* held between the thumb and forefinger while resting on the upright knee. The left hand is on the thigh of the folded leg.

The face is leonine and the mane is prominent and boldly circular like a *prabhāvalī* with hair-lines clearly seen. The head-gear reveals a central knot (*kuḍimi*). The leonine mouth with short canine teeth (*hrasvadaṁshṭra*) and moustaches impart the look of a beast. Obviously, Narasiṁha is a hybrid *avatāra*, being *nara* (man) and *siṁha* (lion). The eye-lids are large with round eye-balls. The nose is sharp with well-defined nostrils, while the ears are raised. There is a prominent *tilaka*-mark between the eye-brows. The fingers of the left hand, the wrist and both the feet, however, retain the characteristics of a wild animal. The wristlets, plain *keyūras*, the *yajñopavīta* across the torso, the *udara-bandha*, the lower *vastra* with a central *nīvi* and tied to a *vastra-mekhalā* around the *kaṭi*, all clearly show the human attire.

The pedestal is of an unusual class. A flat sheet is mounted on a rolled-up cushion. The image appears at first sight to be a *mūlabera* (main deity) in a temple; the tranquil pose and *rājalīlāsana* characterize the great *avatāra* of Vishṇu.

Vaishṇava cult in Andhra

In the early *Bhāgavata* religion, *vibhava* aspect or *avatāras* of Vishṇu appear somewhat later. In Andhra Pradesh several limestone plaques depicting the *vyūha* aspect are known. The sculptured slab from the Kondamotu hill (3 km. from the Piduguralla village in the Palnad taluk, District Guntur), dated to the fourth century A.D., clearly shows in relief Narasiṁha as a principal deity and flanked by five *Vṛishṇi-vīras* with their characteristic *lāñchhanas*[2] in the hands. Narasiṁha, however, is two-armed; the left hand, uplifted, holds a *chakra* in the palm and the corresponding right hand has a sword. The *śrīvatsa* on the chest and the membrum virile erect clearly indicate the Narasiṁha *avatāra* of Vishṇu. M.C. Joshi holds that this depiction is unique and turns into *shaṭvyūha*.[3] In the Kunidene relief, Narasiṁha is shown on the extreme left and in a subordinate position[4] like the *trimukha*-Brahmā on the extreme right. This is actually a Śiva-*pañchāyatana* plaque; centrally placed is Śiva (*liṅga*) along with Śakti and Kārttikeya. Flanking at either ends are Brahmā and Narasiṁha (Vishṇu). The head part of Narasiṁha with a round face, the head-gear, erect ears and bushy side-drawn moustaches bears a close resemblance to the Mothadaka example.

The *trideva* plaques noted from Kisaragutta (District Hyderabad) and Majeti (District Belgaum) depict Narasiṁha (man-lion) along with Śiva and Śakti. The limestone examples from Kunidene and Muktyala clearly reveal the workmanship of the Ikshvāku period and alike datable to the third-fourth century A.D., while the others from Kisaragutta and Majeti are of brown slate and later in date (fourth and fifth century A.D.) assignable to the early Vishṇukuṇḍin and Kadamba periods.[5]

Some other parallels

A.P. Jamkhedkar[6] has drawn our attention to a colossal image of Kevala-Narasiṁha, *dhruvārchabera* (main deity of worship), within the stone temple raised by the queen Prabhāvatī-guptā (A.D. 419-425) of the Vākāṭaka dynasty at Ramtek (District Vidarbha). Here the image is two-armed and like the present example is a consecrated one. However, in this example a thick coat of vermilion covered all its features. This colouring is prescribed in the *āgama* texts and one who makes *dhruvabera* without colour is said to perish.[7] In any case the Mothadaka example of Kevala-Narasimha is not only a unique one but earliest known image of Narasiṁha in the south. It was originally perhaps a *dhruvabera*[8] and painted too. The traces of paint are not visible now, but the abrasive surface indicates its being coated at least periodically during rituals. In the Gupta examples of later date we get four-armed seated images with several attributes, as part of decorative elements in the niches or *chaitya*-windows as in the Gupta temple of Deogarh.[9] In the early Chālukyan period (A.D. 543-654), we get four-armed Narasimha in Cave I, and Cave III upper *Śivālaya* at Badami, but all these are later to the examples of the Palnad limestone slabs described above from Andhra Pradesh.

Notes and references

1. C.L.N. Sastry, Assistant Superintending Archaeologist, Archaeological Museum, Amaravati, has supplied the photograph of the sculpture along with the details of discovery. Jitendra Das, Deputy Superintending Archaeologist, Site Museum, Madras, Archaeological Survey of India, has inspected the place and has furnished some useful notes. Both the officers deserve our thanks for prompt response.
2. Md. Abdul Waheed Khan, *An Early Sculpture of Narasimha* (Hyderabad, 1964), pp. 1-5; R. Subrahmanyam has observed that this plaque was originally found in a temple which was disturbed by the locals, 'Early Temples of Andhra' in *South Indian Studies*, ed. H.M. Nayak and B.R. Gopal, (Mysore, 1989), pp. 576-577.
3. M.C. Joshi's 'Vaishṇava Vyūha and its Derivatives' in *Vaishṇavism in Indian Arts and Culture*, ed. Ratan Parimoo, (New Delhi, 1990), p. 206.
4. T.V.G. Sastry, 'A Stone Relief from Kunidene, District Guntur', *Journal of the Indian Society of Oriental Art*, Vol. II, no. 2, New Series, Baroda, pp. 16-21.
5. I.K. Sarma, 'Early Bhū-Varāha and Nrisiṁha Images from Elal Govindarao pet, District Ranga Reddy, Andhra Pradesh' in *Indian Archaeological Heritage, K.V. Soundara Rajan Felicitation Volume* (New Delhi, 1992), pp. 550-555, Pls; Also see I.K. Sarma, *The Development of Early Śaiva Art and Architecture* (New Delhi, 1982), pp. 157-158.
6. A.P. Jamkhedkar, 'A Newly Discovered Vakataka Temple at Ramtek, Dist. Nagpur', *Kusumāñjali: New Interpretation of Indian Art & Culture* (Sh. C. Sivaramamurti Commemoration Volume), ed. M.S. Nagaraja Rao, (New Delhi, 1987), pp. 217-223, Fig. 5.
7. V. Raghunatha Chakravarti Bhattacharya and M. Rama Krishn Kavi (ed.), *Samūrtārchanādhikaraṇa* or *Atrisaṁhitā*, Sri Venkateswara Oriental Series, no. 6, (Oriental Institute, (Tirupati, 1943), p. 77.
8. K.M. Varma, 'The Role of Polychromy in Indian Statuary', *Artebus Asiae*, Vol. XXIV, no. 2, MCMLXI, pp. 118-119.
9. J.N. Banerjea, *The Development of Hindu Iconography* (Calcutta, 1956), pp. 415-417, Pl. XXIII, no. 3.

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Tapasvinī Pārvatī in Art and Literature with special reference to north India

N. P. Joshi

Introduction

In the iconic realm of the Brāhmaṇical female divinities images of Śiva's consort Pārvatī are of special significance for their quality, quantity and variety. The goddess appears right from the beginning of the Christian era and enjoys unbroken continuation down to the present age. The life history of Pārvatī can fully be traced out with the help of her images only, if we group them in the following order: (i) her penance before and after marriage; (ii) her marriage with Śiva; (iii) fondling of the new bride by Śiva; (iv) the couple in warm embrace in standing or sitting postures; (v) the couple riding the bull; (vi) Śiva-Pārvatī playing the game of dice (*dyūta-krīḍā*); (vii) Pārvatī's association with her lord on various occasions; (viii) Pārvatī reclining on a bedstead with Śiva as a child; (ix) Pārvatī as Skanda-*mātā*; and (x) the Supreme Mother Durgā in benevolent and malevolent forms. Each one of these forms has been dealt with in details by the *Purāṇas*, *Tantras* and other literary sources. Only if we confine ourselves to the *Purāṇas*, several image-types can be well explained and a number of new forms can further be identified. In the present paper we shall be discussing only the first group, that is, Gaurī, often called Tapasvinī Pārvatī, in north India with special reference to Madhyadeśa.

The Devī with a rosary (*aksha-mālā*) and a water-vessel (*kamaṇḍalu*, *kuṇḍikā*, *ghaṭa*) in normal hands, either standing or seated, often flanked by a deer or two and a lion, and sometimes with an iguana (*godhā*) below her feet is known as Gaurī or Tapasvinī Pārvatī. Sometimes containers with blazing fire (*agni-kuṇḍas*) are also seen around her. This image-type originated in early centuries of the Christian era in the Mathura region and gained wide popularity in the post-Gupta period throughout north India, so much so that in the important Śiva temples the deity is always present on the northern side. This profusion of the image-type naturally brought in a wide range of varieties from region to region showing differences in the number of hands, attributes, flanking animals, subordinate figures and divinities on the back-slab. Our present discussions are being based on one hundred and four images, hailing from Uttar Pradesh, Madhya Pradesh, Rajasthan and Gujarat, ranging in date from *c.* second to fourteenth century A.D. (Images of eastern and southern India have only been casually referred to).

Their chronological break-up is as follows:

Images up to *c.* seventh century A.D. ...	10
Images from *c.* eighth-ninth century A.D. ...	25
Images from *c.* tenth-fourteenth century A.D. ...	69
Total	104

Pārvatī's penance

Before we start discussing the images, it will be worthwhile to see what the *Purāṇas* have to say regarding Pārvatī's penance. They record three different occasions, but the type of the penance undergone is more or less the same. These three occasions can briefly be described as follows.

First penance or pre-marriage penance[1].—Satī, the daughter of Daksha Prajāpati, also known as Dākshāyaṇī and Lalitā, was married to Śiva. Daksha was not on good terms with his son-in-law; so he did not invite him on the occasion of a great sacrifice at his place. Satī went there against Śiva's advice, but had to pocket insults one after the other. Ultimately, in utter disgust she threw herself in the sacrificial fire and died. In her next birth Satī became the daughter of Himālaya and came to be called as Kālī, Girijā and Pārvatī. She was of dark colour by birth. Yoganidrā, the goddess of night and sleep, was responsible for this. Instigated by Nārada, Pārvatī decided to practise penance and win over Śiva as her husband in this birth also. Menā, her mother, saying, 'Oh dear! Do'nt do it (*u mā*),' tried to dissuade her, but the girl did not stir an inch, and with the help of her maid friends started practising hard penance. During that very period there arose a demon, Dāruka by name, who overpowered the Devas. This demon was destined to be killed by none except Śiva's son. But Śiva had already lost his wife Satī and denouncing all worldly pleasures he had kept himself engaged in penance. In order to divert his attention, the Devas, in consultation with Brahmā and Vishṇu, sent Kāmadeva or the god of love, with his wife Ratī and friend Vasanta to cause distraction in Śiva's mind. Kāmadeva did it at the cost of his own life. Śiva's meditation came to a stop, the Devas approached at that very moment, offered their prayers and narrated what had fallen on them. They requested him that they could be saved only if he produced a son. The news of Pārvatī's penance was also communicated to him. Reading between the lines Śiva granted their request, but decided to test Pārvatī's firmness. He deputed the Seven Sages (*Saptarshis*) for that, and after getting their favourable reports thought of putting her to test himself. He appeared before Pārvatī in the guise of a *brahmachārī*, and tried to disturb her by describing Śiva's inauspicious and terrific characteristics, but all was in vain and Śiva became fully convinced of her firm determination. He now appeared in his original form and agreed to accept her as his wife. In due course their marriage took place.

SECOND PENANCE, THE POST-MARRIAGE PENANCE[2].—It has already been said that Pārvatī, by birth, was dark in colour. Once after marriage, when she had embraced Śiva, the latter, as a sheer joke, observed that her embracing him looked as if a dark *bhujaṅgī* (she-serpent) was embracing the white sandal tree. Pārvatī could not bear this direct hit on her colour. She tried to pay Śiva in his own coins and further declared that she was finally retiring to forest and would return only if she could manage to get her colour changed and become Gaurī. Paying least attention to Śiva's clarifications she went to her father's place. But before doing so she appointed Vīraka, one of her faithful attendants, to keep an eye over Śiva in her absence. She went to the Himālayan regions and this time tried to please Brahmā by her penance.

Meanwhile at this end a demon, Āḍī by name, thought of taking advantage of Pārvatī's absence and hatched a conspiracy against Śiva. He went to him in the guise of Pārvatī and in course of conjugal activities planned to kill Śiva. But Śiva detected the foul intentions and Āḍī was put to death. Vīraka could only see a young damsel entering Śiva's private apartments. Without caring to investigate further, he immediately communicated the news to his mistress. Hearing this Pārvatī became extremely furious and her wrath came out in the form of a strong and terrific lion or a tiger as per another version. This animal continued to be with her during the penance. However, in due course Brahmā appeared before her and Pārvatī's request for change of her colour was granted. Immediately thereby from her body emerged 'the blue-coloured three-eyed goddess Yoganidrā, who was basically responsible for her dark shade. This Devī, clad in yellow and bedecked with ornaments, carried a bell (*ghaṇṭā*) in her hands.' Having been produced from the body or *kośa* of Pārvatī, she came to be known as Kauśikī. Her other synonyms were Niśā, Ekānaṁśā and Vindhya-vāsinī. She killed the demons Śumbha and Niśumbha and took Vindhyāchala as her abode. Pārvatī now became of golden hue (*kāñchana-gaurī*) and went back to Śiva in all happiness.

THIRD PENANCE, ANOTHER POST-MARRIAGE PENANCE[3].—This time the reason was not any dispute but just a merry-making activity. Once it so happened that sheerly as a joke Pārvatī put her hands on the three eyes of Śiva, but this innocent and unintentional act on her part had far-reaching effects. Śiva's eyes being closed, the deities Sūrya, Chandra and Agni became powerless and their normal activities came to a stop. It appeared that final end of the universe was near at hand. All the gods, being afraid of this untimely and unforeseen calamity, rushed to Śiva for shelter. Now Pārvatī realised what she had done. She quickly removed her hands and every thing became normal. But Śiva took this in altogether different light. He said that Pārvatī was not only his wife but also the mother of the universe (*jaganmātā*); and so it was not at all befitting for her to have done any thing which would put the world in utter turmoil. The fault, therefore, was thought to be unpardonable and for purification hard penance on her part was the only go. Pārvatī obeyed her lord and proceeded to Kāñchipurī, which stood on the bank of the river Kampā, for *tapas*. This episode mainly belongs to south Indian tradition, and is not of much use for our purpose.

Literary background of the image-type

So much about Pārvatī's penance in legends from the *Purāṇas*. Let us now take a quick survey of what the iconographic canons say about this image-type, usually known as Gaurī. According to the *Agni-purāṇa*[4] the three-eyed and two-armed Gaurī should carry a spear (*śūla*) and a mirror (*darpaṇa*). If she is with four hands, she should have a *śūla*, *galantikā* (?), *kuṇḍī* and *vara* (boon-imparting attitude). The *Purāṇa* also discusses her other forms such as Lalitā, Siddhā and Chaṇḍikā.[5] The *Aparājitapṛichchhā*[6] (later half of twelfth century A.D.), which has been closely followed by the *Devatāmūrti-prakaraṇa*[7] and the *Rūpamaṇḍana*[8] (both of *c.* fifteenth century A.D.) calls Gaurī as '*godhāsanā*', that is using an iguana as her mount, and further describes her twelve forms giving details about the attributes, etc. These twelve forms are Gaurī, Umā, Pārvatī, Śriyā, Rambhā, Totalā, Tripurā, Lalitā, Kṛishṇā, Māheśvarī, Sāvitrī and Trikhaṇḍā or Śrīkhaṇḍā. The *Rūpamaṇḍana* mentions only seven of these,[9] namely Gaurī to Tripurā. Under the *āyatanas* of Gaurī it does refer to Siddhā, Śriyā, Sāvitrī, Bhagavatī, Sarasvatī, Gaṇeśa and the two Kumāras, but refrains from giving details about their attributes, etc.[10] The *Aparājitapṛichchhā*[11] also talks about the eight gate-keepers (*pratihārīs*) of Gaurī. This work distinguishes between Gaurī, Lalīyā and Durgā and observes that Gaurī would be on iguana, Lalīyā on a swan and Durgā would ride a lion,[12] but curiously enough many of the forms of Gaurī described by the same writer do not have iguana.

Survey of images

Equipped with this literary background, let us now turn to the images proper. The earliest one, datable to *c.* second century A.D., comes from Mathura (GMM. 15.879). In this case only the upper part showing Pārvatī with her right hand raised in *abhaya* and left akimbo is now extant. The two *agni-kuṇḍas* by her sides serve as the identification-marks. Next are the finds from Mandhal[13] and Patur,[14] both from Maharashtra, datable to *c.* A.D. 400-500. These figures are also two-armed, but show no *agni-kuṇḍas*. They are followed by another image in Cave 21, Ellora,[15] in Maharashtra. Here one can see the Tapasvinī in full form. She carries *aksha-mālā* in her right hand and a *kamaṇḍalu* in the left and has a deer-skin suspended on her left shoulder. Four *agni-kuṇḍas* are to be seen near her feet. She has been approached by Śiva as a *brahmachārī*, and a few *Śiva-gaṇas* are also present below. In north India there is a long gap after Mathura till *c*. seventh century A.D. Tapasvinī Pārvatī is now first to be seen at Kannauj.[16] She is clad in simple dress and has a deer-skin on her left shoulder and *agni-kuṇḍas* are conspicuously absent. Her four-armed form, almost contemporary, is available at Mundesvari (District Shahabad, Bihar)[17] wherein the Devī has *mālā*, *vara*, *ghaṭa* and an elongated object in her hands. This elongated object, seen in a number of forms and varieties, has been identified as *kuśāṅkura* or a tuft of the *kuśa* grass by Krishna Deva.[18]

During this period we come across her seated form also. In a figure from Musanagar (District Kanpur, Uttar Pradesh) she is two-handed (SML. 54.148), but at Arol[19] and Batesar[20] (both in Madhya Pradesh) and at Roda[21] in Gujarat she is four-handed. Broad features of these early forms of Gaurī can be summarized as below:

(i) Most of the images are in standing posture, though the seated form was also known.
(ii) *Aksha-mālā*, *ghaṭa*, *kuśāṅkura* and lotus or *padma* are the usual attributes.
(iii) The Devī puts on simple *śāṭī*, has sometimes a deer-skin on her shoulder, or has a *yoga-paṭṭa* running round her knees.
(iv) In a few cases Pārvatī is flanked by a lion and one or two deer. Friendly appearance of these two opposites suggests peaceful atmosphere caused by her penance.
(v) Iguana is rarely seen. For example it appears in a figure from Ajmer (Rajputana Museum, Ajmer, no. 324).
(vi) Attendants and subordinate deities on the back-slab do not appear.
(vii) The *agni-kuṇḍas* establishing her *pañchāgni-tapas* have just been introduced in a few cases only.
(viii) Appearance of Śiva-*liṅga* and Gaṇapati is still a rare phenomenon.
(ix) It is not yet possible to identify the distinct forms of Gaurī, but the idea seems to depict her pre-marriage penance.

From *c*. eighth century onwards there is a prolific growth in the number of images of Pārvatī throughout north India, which ushered new varieties with distinct regional trends. Gouriswar Bhattacharya has discussed the forms current in the eastern part of undivided India and has shown that Siddhā in *kadalī-vana* or banana-forest was popular in eastern Bengal, while Lalitā enjoyed popularity in north Bengal.[22] Let us see the state of affairs in Madhyadeśa. Ninty-four images of post-eighth century period hailing from this part of our country serve as the data. Though the old form of Gaurī in general did continue in this period, there has been a great addition in the attributes, surrounding figures and subordinate deities occupying the upper and lower field of the back-slab. They can briefly be noted as follows.

(a) Besides *aksha-mālā*, *ghaṭa*, *padma* and *kuśāṅkura* one can often see a goad (*aṅkuśa*), sacrificial ladles (*sruk*, *sruvā*), manuscript (*pustaka*), mirror (*darpaṇa*), trident (*triśūla*), lotus-buds (*padma-kalikā*), etc. as attributes of Gaurī.

(b) Apart from a lion, deer and iguana, rarely a bird and serpents are also there.

(c) One of the notable additional features is the appearance of a number of subordinate deities (*parikara-devatās*) such as Gaṇeśa, Skanda, Kauśikī with a bell in hand, Annapūrṇā with a ladle, *nava-grahas*, seven *mātṛikās*, Gaṅgā, Yamunā, *rathikā*-figures like Brahmā, Vishṇu, Ardhanārīśvara and Lakulīśa. Besides, a number of ascetics (*ṛishis*), Pārvatī's maid friends (*sakhīs*) and attendants are also to be seen. One does not come across with all of them in any single figure of Gaurī; rather their appearance or deletion depends on several factors such as type of the image, availability of space, regional trends, choice of the sculptor, etc. Reasons for the appearance of most of them can be explained with the help of literary references, but some like the iguana (*godhā*) itself are still problematic. Actually some of them serve as the guidelines for identifying the image-types.

Without discussing these different attributes and subordinate deities in details for lack of space and time we would directly proceed with identification of various forms of Gaurī-figures in Madhyadeśa. They can broadly be classified in three groups, namely (I) pre-marriage and post-marriage penance, (II) forms discussed in literature excluding the iconographic texts and (III) twelve forms of Gaurī according to the *Pratimā-lakshaṇa*.

Group I, pre-marriage and post-marriage penance

Three occasions of Pārvatī's penance have already been discussed; first is her pre-marriage penance and the second and the third are post-marriage events. In images pre-marriage penance and only one post-marriage penance can be identified, the distinguishing factor being appearance of the goddess Kauśikī with a bell in hand. Earlier figures of Tapasvinī Pārvatī in unsophisticated dress, often with a deer-skin on shoulder and *agni-kuṇḍas* around seem to depict her pre-marriage penance. The figure of Ellora clearly establishes this fact. Among the post-eighth century figures those with Sūrya and other *grahas* in the upper field[23] and also those with Lakulīśa in central *rathikā*[24] (Pl. 24.2) should also be grouped in this class. Pārvatī was particular to offer worship to the *nava-grahas* at the time of her marriage.[25] The presence of Lakulīśa may indicate Śiva as a *yogī*, cut off from the worldly affairs, as he actually was, when Pārvatī had taken recourse to penance for marriage. Pārvatī with Śiva-*liṅga* in her hand also suggest her pre-marriage penance, wherein she had been worshipping a sand-made (*vālukāmaya*) *liṅga* according to the *Purāṇas*.[26] By and large most of the figures of Tapasvinī Pārvatī appear to belong to this group.

In spite of several common factors, those showing the 'bell-carrying goddess' Kauśikī as a subordinate deity form a group by themselves. We have seen that this deity is Yoganidrā, whose emergence from Pārvatī's body under the name of 'bell-carrying blue-coloured Kauśikī' is closely related with Pārvatī's post-marriage penance for change of her colour. We have sixteen figures with Kauśikī, and all of them hail from central India.[27] This Kauśikī (Pl. 24.3) has been depicted in two forms; either she carries a bell in her left hand and a ladle in the right,[28] or she holds either of the two only.[29] Three figures of Gaurī with Kauśikī show Brāhmī as one of the *parikara-devatās.*[30] In an image from Hingalajgadh she appears in the central *rathikā.*[31] This too seems to be of some significance. Brāhmī is the female energy of Brahmā and in this post-marriage penance Pārvatī had prayed Brahmā for change of her colour. Similarly, the image with Ardhanārīśvara in central *rathikā*[32] should also be grouped in this class, because along with change of her colour Brahmā had blessed her to be 'the half part of her husband's body', which in other words means Ardhanārīśvara form.[33]

Group II, Gaurī-figures in literature

This grouping is mainly based on various descriptions and expressions in the *Purāṇas.* They are as follows.

Eka-pāda-sthitā Gaurī or Gaurī standing on one foot[34].—Describing her penance, the Māheśvara-*khaṇḍa* of the *Skanda-purāṇa*[35] informs that Pārvatī stopped eating even the dry leaves of the tree and balancing her body on one of her toes only carried on the penance. We know of three figures, two from north India and one from south, which show the Devī standing on left foot. The Hingalajgadh figure (Pl. 24.1) is two-armed, while the Kota figure and the Palnad figure are four-armed. Of them the Palnad figure is datable to *c.* eighth century A.D., and therefore the earlier in the lot.

Jagadgaurī Manasā.—Manasā, the wife of Jaratkāru and the daughter of Kaśyapa, has been described in the *Devī-Bhāgavata*[36] and *Brahma-Vaivarta-purāṇa.*[37] Her son Āstika had saved serpents from being killed in Janamejaya's Serpent-sacrifice. Manasā, a snake-deity and staunch devotee of Śiva, came to be popular in major part of undivided eastern India. The *Brahma-Vaivarta-purāṇa* enumerates her twelve names, of which one is Jagadgaurī. Perhaps due to this nomenclature the sculptors sometimes depicted her as Gaurī. For example, in an image (Pl. 24.4) of *c.* eighth century from Sivadvara in Uttar Pradesh (SML. 0.263)[38] Manasā having a snake-canopy over her head is seen seated cross-legged with an *aksha-mālā* and a *ghaṭa* in her hands flanked by four snakes on each side. Śiva-*liṅga* and Gaṇeśa are present on the upper corners of the back-slab. Another similar figure of Manasā, but with four hands and a mirror as an additional attribute, has been found in the Sarnath excavations in Uttar Pradesh.[39]

KSHEMAṄKARI GAURĪ.—Goddess Kshemaṅkarī with two lions near her feet is one of the forms of Durgā. Images of Kshemaṅkarī Durgā and Kshemaṅkarī Skanda-*mātā* are to be seen in the Museum at Lucknow (SML. 0.252)[40] and Gwalior.[41] Kshemaṅkarī Gaurī with *vara*, padma and *triśūla* hailing from Baijnath in Uttar Pradesh is to be seen in the National Museum at New Delhi (NM. 53.14). Another interesting figure, of which only the lower portion has been preserved, comes from Rajasthan, wherein between the two lions the iguana is also present (Mandor Museum 7/1048).

KĀMADĀ GAURĪ.—An image of Gaurī from Atkheda (District Devas, Madhya Pradesh) has her name 'Kāmadā' inscribed on the pedestal (Central Museum, Indore 34/234). We do not know of this form from the *Purāṇas*, but some of the iconographic texts use the words *kāmadā* and *sarva-kāmadā* as adjectives of Rambhā Gaurī.[42] It is interesting to note that the image under reference agrees with the description of Pārvatī Gaurī as we shall shortly see.

LAJJĀ GAURĪ.—A very interesting figure of *c.* seventh century A.D. has been reported from Dhank (District Junagarh, Gujarat).[43] The Devī (Pl. 24.5), almost naked and seated with legs widely spread, has both of her hands raised to the shoulders. A full-blown lotus in the left hand is clear; a similar one could have been there in the right hand also. In the upper left corner of the back-slab appears a figure of seated Gaṇeśa. On the corresponding side, which is now mutilated, we know not if there was a Śiva-*liṅga*. Two other similar figures of near about the same age are known to us. One, coming from Bhinmal in Gujarat,[44] shows a *liṅga* with bull on right, while the other from Arna in Rajasthan[45] has Gaṇapati on the right side.

These figures, due to their association with Gaṇapati and Śiva-*liṅga* and lotus flower in hand, seem to belong to Gaurī class; but their sitting posture and nudity call for special attention. In this connection one may recall a stone plaque from Kunidane in Andhra Pradesh,[46] which shows a lotus-headed similar goddess seated in line with a *liṅga*, Brahmā, Narasiṁha and Skanda. We know that the lotus-headed goddess seated with legs widely spread and hands upraised forms a distinct group by herself; and this depiction, either in terracotta or in stone, has been traced right from early times down to the mediaeval ages both in the north and south. The Kunidane plaque clearly shows her Brāhmaṇical nature.

This headless goddess has been variously identified as Viśirā, Nagnikā, Aditi, etc.[47] On the basis of literary and epigraphic evidence she has been called 'Lajjā-Gaurī' also.[48] Some inscriptions in Sanskrit and Kannad of the time of Chālukya ruler Maṅgaleśa (*c.* A.D. 592-611) from south India show that this deity was originally known as Lañjī, Lañjā and Lañjikā, the consort of Śiva at Mahakuta or Nandikesvara near Badami (District Bijapur, Karnataka). In Sanskrit the word *lajjā* carries two meanings, namely Lakshmī and an adulteress.[49] One of the synonyms of Lakshmī, who carries lotuses, is

Śrī or Śriyā. This name appears also in the twelve form-names of Gaurī. Phonetic similarity between Lañjā and Lajjā seems to be accounting for replacement of Lajjā for Lañjā and thus the *Mahākūṭa-Mahimā* of the *Śākambharī-māhātmya*, which is said to be an extract from the *Skanda-purāṇa*, mentions Lajjāgaurīśa along with Pātāleśa and Pinākīśa, the names of Śiva-*liṅgas* of Vishṇu-pushkariṇī Tīrtha. Welcome light on nudity of Pārvatī or Gaurī comes from a folk tale of the Mahākūṭa region recorded in the *Devīkośa*.[50] It tells that once, when Śiva and Pārvatī were busy in water-sports, all of a sudden a devotee appeared on the scene. This put the couple in very akward position. Śiva quickly disappeared in a *liṅga* and Pārvatī got herself concealed in a tank nearby. The 'ashamed goddess' thus came to be called 'Lajjā-Gaurī'. Another folk tale accounts for her headlessness also, but that need not detain us at present.

Above discussion shows that the concept of Lajjā-Gaurī as a form of Pārvatī is of south Indian origin and enjoyed popularity in that region at least in later periods. Retaining its nudity but substituting a human head for a full-blown lotus on the trunk, the form seems to have travelled to Gujarat and Rajasthan in post-Gupta period; and the Gaurī character of Devī was responsible for appearance of a *liṅga* and Gaṇeśa by its side.

Group III, Gaurī-forms in the iconographic texts

We have already referred to the *Aparājitapṛichchhā*, *Devatāmūrti-prakaraṇa* and *Rūpamaṇḍana* describing the twelve forms of Gaurī. It may be mentioned in this connection that the twelve female divinities appearing on the eastern part of the *sabhā-maṇḍapa* of the Sun Temple at Modhera in District Mesana of Gujarat have been identified with *dvādaśa* Gaurīs of the *Aparājitapṛichchhā*, of course with some reservations.[51] All the figures are four-armed and carry a number of attributes in their extra hands; in the normal hands they have often a *mālā* and a *kamaṇḍalu*. Among the attributes some do find mention in the *Aparājitapṛichchhā*, but a few others are new. None of the Devīs of the Modhera group carries a *liṅga* and Gaṇapati or has the iguana below her feet. In one case, on the other hand, a humped bull appears as the *vāhana*. All the figures stand in *tribhaṅga*, a pose, which does not agree with Gaurī. To identify these figures with *dvādasa* Gaurīs, therefore, is difficult to accept.

Let us again turn to the independent Gaurī figures. The descriptions in the texts sometimes prove to be of little use for identifying the image-form in art, because the available images are badly injured and have lost a number of important details. Another difficulty as already pointed out, is created by the iguana. According to the *Aparājitapṛichchhā* the animal is to be seen with Śriyā only, while as many as twenty-four images of more than one variety under our reference have *godhā* below their feet. Actually the *godhā* in Gaurī figures start appearing from as early as *c.* eighth century A.D. (Rajputana Museum, Ajmer, no. 324). What seems to have happened is that the tradition of the *devī* on *godhā* becomes Gaurī (*godhāsanā bhavet Gaurī*) recorded by the *Aparājitapṛichchhā* had some ancient origin, and was accepted as a general maxim. Subsequently, irrespective of the form concerned the sculptors have shown *godhā* below the feet of Gaurī. The same is the case with *agni-kuṇḍas*, Śiva-*liṅga* and Gaṇapati. According to the iconographic canons *agni-kuṇḍas* go only with Pārvatī and Kṛishṇā, while *liṅga* and Gaṇapati with Pārvatī only. On the contrary the actual position is alarming. Thirty-five figures of our data have *agni-kuṇḍas*, and forty-five have *liṅga* and Gaṇeśa; and all of them are certainly not Pārvatī and Kṛishṇā. Under these circumstances without taking note of the presence or absence of *godhā*, *agni-kuṇḍas*, Gaṇeśa and *liṅga*, if we rely on one or more attributes only, the existence of the following forms can broadly be accepted.

PĀRVATĪ GAURĪ.—As per *Aparājitapṛichchhā* Pārvatī Gaurī should carry *aksha-mālā*, *liṅga*, Gaṇeśa and *kamaṇḍalu*, and *agni-kuṇḍas* should also be there. Images from Atkheda (Central Museum, Indore, no. 34/234), Khajuraho[52] and Nagpur (Nagpur Museum, A. 43) fairly agree with this description.

GAURĪ.—When two-armed, Gaurī should have *śūla* and *darpaṇa*, but when she has four hands, she should hold *aksha-sūtra* (that is *mālā*), a pair of lotuses and *kamaṇḍalu*. This four-armed Gaurī can be seen at Jabalpur (Rani Durgavati Museum, 136).

ŚRIYĀ GAURĪ.—Śriyā has *mālā*, *padma*, *vara* and *abhaya*, and a *godhā* below her feet. She is to be worshipped 'in the house' (*gṛihe pūjyā*). Association of the lotus flowers and specific mention of iguana suggest her identity with the goddess Śrī or Lakshmī.[53] We have as many as thirty-six figures holding one or two lotus flowers. But holding of the lotus cannot be the only criterion, as Umā and Māheśvarī, two other forms of Gaurī, have also this flower in their hands. Of course the figures seen along with Vishṇu can be taken as those of Śriyā with pretty amount of certainty.[54] The two figures under reference with Vishṇu in between bear three and two *liṅgas* respectively on the upper part of their back-slab. This also seems to be in keeping with the *Padma-purāṇa*,[55] which describes Lakshmī as bearing a *liṅga* on her head. Hemādri, citing the *Viśvakarmā-śāstra*, talks of Mahālakshmī at Kollapura (modern Kolhapur in Maharashtra) with four arms holding a flask (*pātra*), club (*gadā*), shield (*kheṭaka*) and a coconut fruit (*śrīphala*), and also a Śiva-*liṅga* on her head.[56] This is further to be noted in this connection that the City-goddess of Kolhapur is locally known both as Mahālakshmī and Ambā, thereby suggesting the identity of the Vaishṇava and Śaiva goddess as is the case with Śriyā Gaurī.

UMĀ GAURĪ.—Umā should be with *aksha-mālā*, *padma*, *darpaṇa* and *ghaṭa*. A bronze figure in the Raipur Museum (MGM. 00.15) has all the three except *aksha-mālā*. In the Lucknow Museum figure (SML. H. 25)[57] *aksha-mālā* and *darpaṇa* are extant, but the attributes in other hands are lost. It should also be remembered that sometimes Umā has been described as showing *vara*, noose (*pāśa*), goad (*aṅkuśa*) and *abhaya*.[58]

SĀVITRĪ GAURĪ.—Traditionally Sāvitrī is known as consort of Brahmā. In her Gaurī form she should be four-faced and carry *aksha-mālā*, *pustaka*, *padma* and *kamaṇḍalu*. None of our images is four-faced, but in some cases the attributes of Brahmā, namely *pustaka* and sacrificial ladle (*sruk* and *sruvā*), are there. This can be taken as a clue for identifying Sāvitrī figures. One such image on the walls of Lakshmaṇa temple at Khajuraho[59] with a manuscript and sacrificial ladle has a miniature bird near her right foot. This probably suggests a swan, though it does not look like it.

TRIPURĀ GAURĪ.—According to the *Aparājitapṛichchhā* Tripurā should have *pāśa*, *aṅkuśa*, *vara* and *abhaya*. We have already referred to Umā with these attributes. A metal figure from Malwa in Madhya Pradesh in the collection of Dr. Lagu at Indore agrees with the above description. A figure from Kota (Kota Museum, 639/76) and the other from Mathura (GMM. 15. 1105) also hold a *pāśa*, but other attributes are different.

LALITĀ AND SIDDHĀ.—As has already been observed these forms enjoyed popularity in the eastern part of undivided India. So far Madhyadeśa is concerned Siddhā in *kadalī-vana* can be seen in the Allahabad Museum (Allahabad Museum, 1087). Lalitā, according to the texts, should appear with one of her hands resting on the head of Skanda or Kārttikeya. If mere appearance of Skanda is taken to be sufficient, we have five figures, wherein Skanda is seen either rounded by Gaurī's stemmed lotus (Rani Mahal, Jhansi, 518), or seated on it.[60] Sometimes he appears in the central *rathikā* (Kota Circuit House no. 196), or somewhere on the back-slab (SML. 52.4). In a figure in the Nagpur Museum (Nagpur Museum, A. 34) Skanda is flanking the goddess.

GAURĪ WITH A CONCH HELD IN NORMAL HANDS.—We have as many as six figures of Gaurī who hold a big conch in their normal hands joined together below the breasts. Of them, five come from Mathura and one from Jhansi (Rani Mahal, Jhansi, 576). Decidedly they form a group by themselves. Two of them (GMM. D. 51; 15.1105) have Śiva-*liṅga* and Gaṇeśa, but the two others (GMM. 31.2103; 58.4565) have only a *liṅga*. None of the twelve forms of Gaurī in the texts carry a conch like this; only the nearest would be Kṛishṇā Gaurī with *aksha-mālā* and *kamaṇḍalu*, the normal hands joined together in *sampuṭāñjali* pose. Identification of this 'conch-bearing' goddess is, therefore, a matter of further research.

Conclusions

The above discussions lead us to the following conclusions:

I. The earlier images up to the beginning of *c.* eighth century A.D. are simple in dress, devoid of ornaments and carry *aksha-mālā* and *ghaṭa* in the normal hands.

II. From *c.* eighth century and onwards there is a remarkable growth in the number of images of Gaurī. Most of them are four-handed and have different attributes. Gaurī is now accompanied by her *sakhīs*, attendants and subordianate deities.

III. Images of Gaurī can be grouped in different ways. Images showing her post-marriage penance can be distinguished by the presence of the 'bell-carrying' Kauśīkī.

IV. Literary evidence proves helpful to identify the figures of Eka-pāda-sthitā Gaurī, Kshemaṅkarī Gaurī, Jagadgaurī Manasā, Kāmadā and Lajjā-Gaurī.

V. All the twelve forms of Gaurī, *dvādaśa* Gaurī, described in the iconographic texts cannot be recognised in sculptures with all certainty; but a few like Pārvatī, Gaurī, Śriyā, Umā, Sāvitrī, Tripurā, Lalitā and Siddhā can fairly be identified.

VI. Gaurī holding a conch in normal hands joined together is also met with, but exact identification of this form needs further investigation.[61]

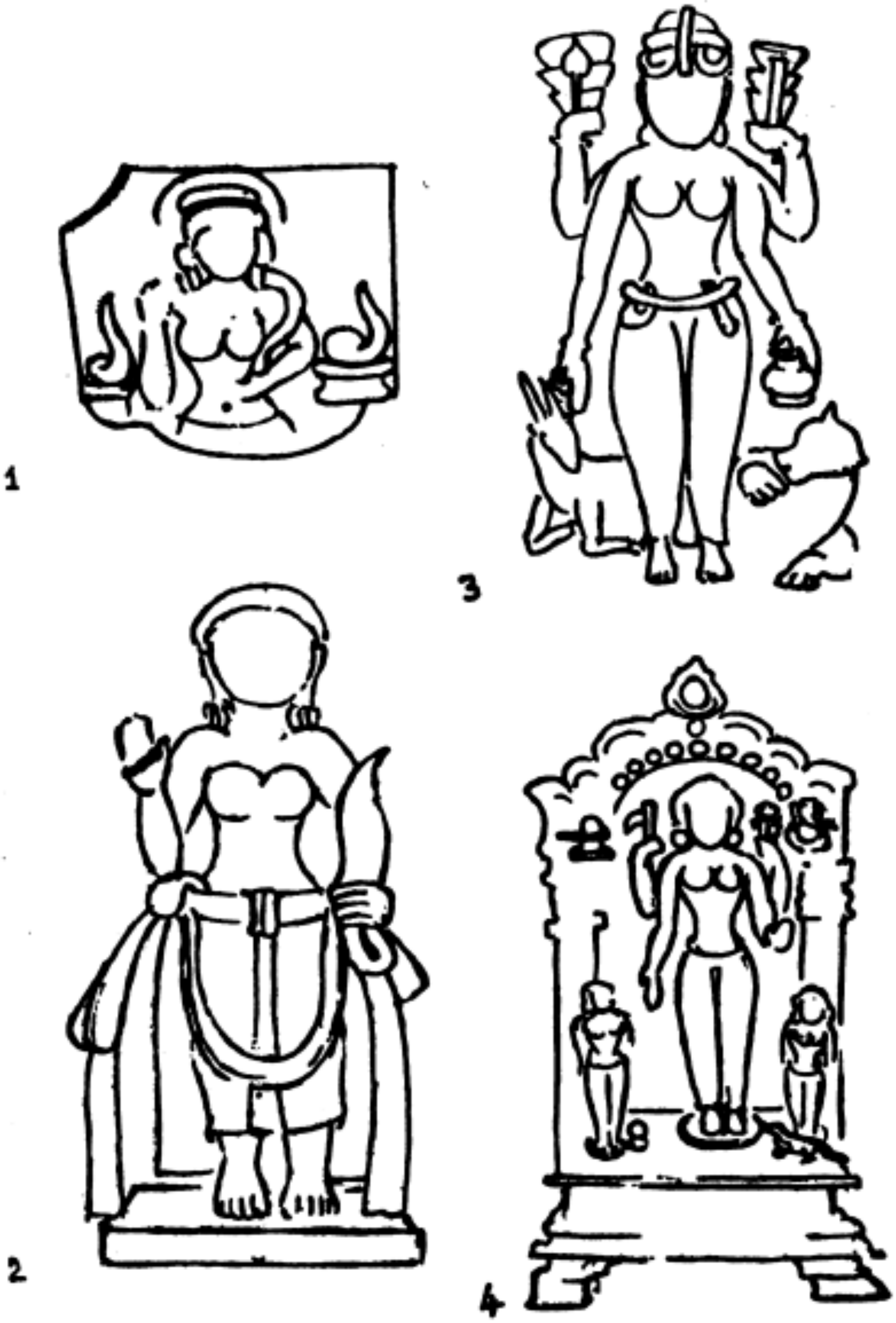

Fig.1

1. Tapasvinī, Mathura, Fig.$^{+}$ 1, *c.* 3rd century A.D.
2. Tapasvinī, Patur, Fig.$^{+}$ 3, *c.* A.D. 500
3. Gaurī, Doni, Fig.$^{+}$ 23, *c.* 10th century
4. Tripurā Gaurī, Madhya Pradesh, Fig.$^{+}$ 101, *c.* 11th-12th century, (Brass image)

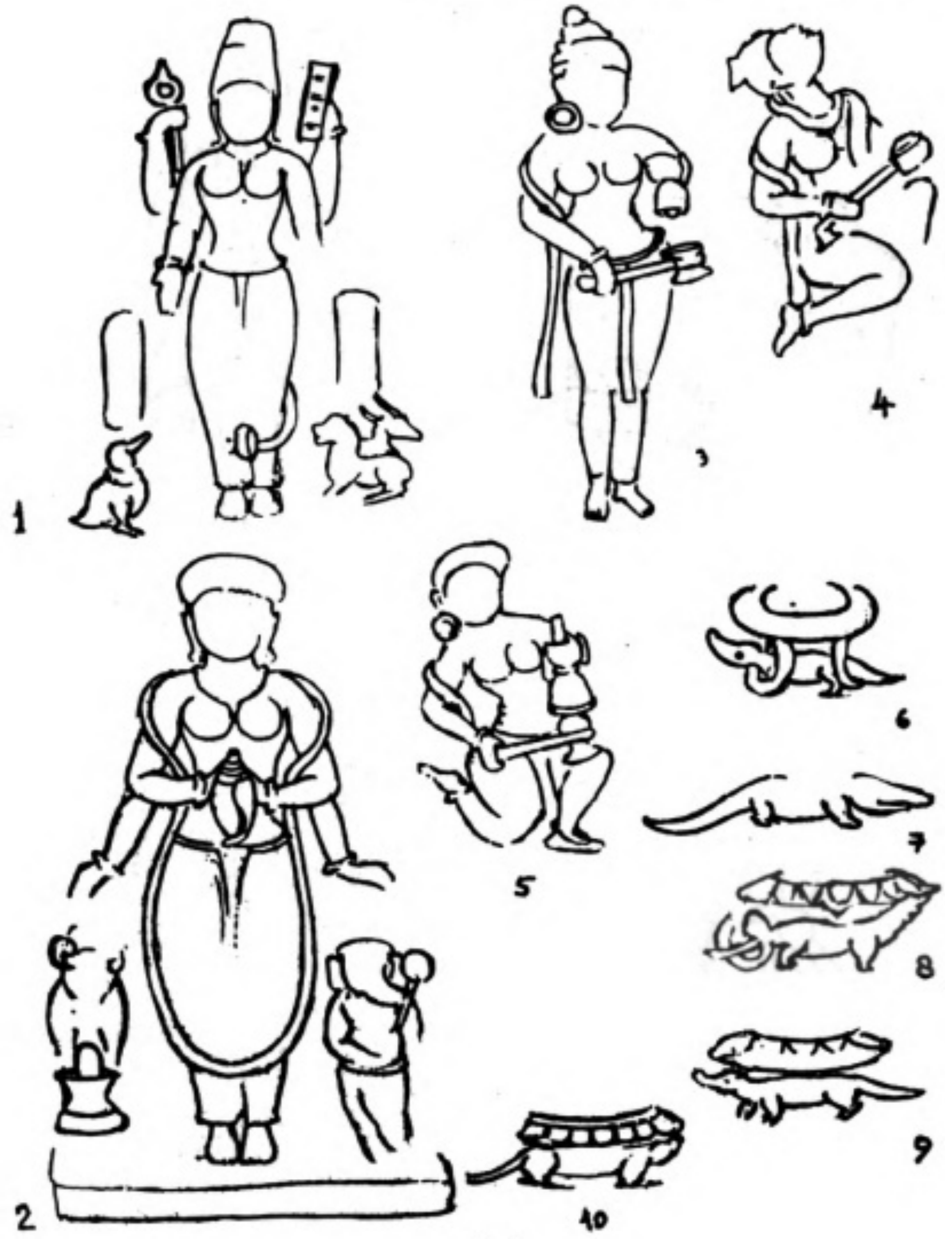

Fig. 2

1. Sāvitrī Gaurī, Khajuraho, Fig.$^{+}$ 73, *c.* 10th century
2. Śaṅkha-dhāriṇī, Mathura, Fig.$^{+}$ 96, *c.* 10th century
3. Kauśikī, Hingalajgadh, Fig.$^{+}$ 45, *c.* 10th century
4. Kauśikī, Hingalajgadh, Fig.$^{+}$ 74, *c.* 10th century
5. Kauśikī, Lucknow, Fig.$^{+}$ 102, *c.* 11th-12th century
6. Iguana, Hingalajgadh, Fig.$^{+}$ 45
7. Iguana, Folk, Fig.$^{+}$ 56
8. Iguana, Hingalajgadh, Fig.$^{+}$ 74
9. Iguana, SML. 62. 118, Fig.$^{+}$ 84
10. Iguana, SML. H. 25, Fig.$^{+}$ 77

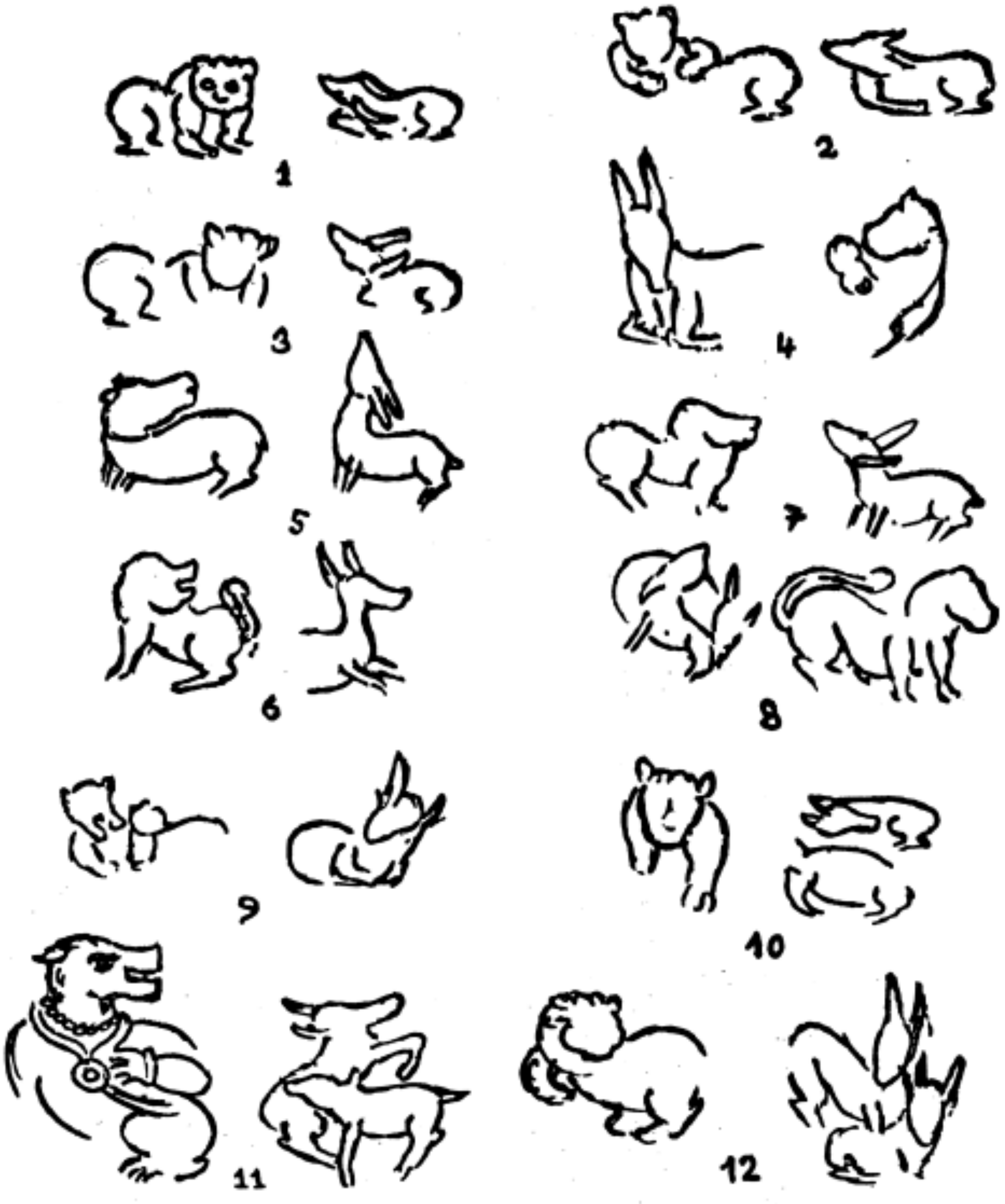

Fig. 3. Positions of lions and stags

1. Lakhamandal, Fig.⁺ 8, *c.* 7th cent.
2. Batesar, Fig.⁺ 16, *c.* 8th-9th cent.
3. Naresar, Fig.⁺ 27, *c.* 8th-9th cent.
4. Doni, Fig.⁺ 30, *c.* 10th cent.
5. Gwalior, Fig.⁺ 15, *c.* 8th-9th cent.
6. Gwalior, Fig.⁺ 29, *c.* 8th-9th cent.
7. Allahabad, Fig.⁺ 38, *c.* 9th cent.
8. Bhopal, Fig.⁺ 71, *c.* 10th cent.
9. Doni, Fig.⁺ 59, *c.* 9th-10th cent.
10. Naresar, Fig.⁺ 32, *c.* 8th-9th cent.
11. Suhania, M.P., Fig.⁺ 83, *c.* 11th cent.
12. Ashapuri, M.P., Fig.⁺ 57a, *c.* 10th cent.

Notes and references

1. *Matsya-purāṇa, adhyāya* 153, pp. 420-; *Skanda.*, Māheśvara., *adhyāya* 20-27, pp. 114-; Kaumārikā., *adhyāya* 22-26, p. 318; etc.
2. *Śiva-purāṇa*, Vāyaviya Saṁhitā, *pūrva bhāga, adhyāya* 24-26; *Vāmana-purāṇa*, 54.6-28, Gita Press, p. 250-; *Matsya.*, 154. 1-, p. 455.
3. *Skanda.*, Aruṇāchala Māhātmya, *adhyāya* 4, p. 569.
4. *Agni-purāṇa*, 52. 14-15, p. 99.
5. *Ibid.*, 50. 13-15, p. 95.
6. *Aparājitapṛichchhā*, 222.5-19, pp. 571-72.
7. *Devatāmūrti-prakaraṇam*, viii. 5, p. 145.
8. *Rūpa-maṇḍanam*, v. 1, p. 183.
9. *Ibid.*, v. 1-7, pp. 183-85.
10. *Ibid.*, v. 8-9, p. 185.
11. *Aparājita.*, 220. 23-24, p. 564.
12. *Ibid.*, 222. 37, pp. 572-73.
13. Odile Divakaran (1984), Fig. 243, p. 284.
14. *Ibid.*, Fig. 244, p. 284.
15. R. D. Trivedi (1981), p. 34; *Discourses on Śiva*, ed. M. W. Meister, (Bombay, 1984), Pl. 201.
16. G. K. Agnihotri (1979), Fig. 79.
17. Krishna Deva (1984), Pl. 1, p. 2.
18. Krishna Deva (1984). [In most cases, this attribute looks like a *tridaṇḍa*.— Editor]
19. Arol figure: AIIS. Neg. no. 477.25, Fig.$^{+}$ 14. The word Fig.$^{+}$ stands for the figure no. in Appendix A.
20. Batesar figures: AIIS. Neg. no. 476. 79, also Neg. no. MWM 1972-5-2; Figs.$^{+}$ 16, and 19.
21. Roda figure: U. P. Shah (1960), Fig. 66, p. 94; Fig.$^{+}$ 17.
22. Gouriswar Bhattacharya (1985).
23. With *nava-grahas*: Figs.$^{+}$ 33, 39, 74 and 77.
24. With Lakulīśa: Figs.$^{+}$50, 74, 82.
25. *Skanda.*, Māheśvara., Kaumārikā., 22. 88-90, p. 134.
26. *Skanda.*, Māheśvara., Aruṇāchala., 4. 10-33, p. 569; *Vāmana.*, 51. 43, p. 236; 51. 70, p. 238.
27. For Kauśikī, see 28 below.
28. Kauśikī with bell and ladle, Figs.$^{+}$ 36, 49, 77, 90 and 102.
29. Kauśikī with bell, Figs.$^{+}$ 60, 61 and 102; with ladle, Figs.$^{+}$ 26, 45, 74 and 77.
30. Figures with Brāhmī, Figs.$^{+}$ 36, 45 and 102.
31. With Brāhmī in central *rathikā*, Fig.$^{+}$ 45.
32. With Ardhanārīśvara in central *rathikā*, Fig.$^{+}$ 52.
33. *Matsya.*, 156. 13, p. 459; *Kālikā-Purāṇa*, 41. 66-68, p. 284, Varanasi 1972.
34. Figs.$^{+}$ 18, 46 and 79.
35. *Skanda.*, Māheśvara., 21. 139-43, p. 127.
36. *Devī-Bhāgavata*, IX. 1. 71-77, p. 786.
37. *Brahma-Vaivarta.*, 45. 2-18, p. 284.
38. Manasā, Fig.$^{+}$ 13.
39. *Annual Report, Archaeological Survey of India, 1907-8*, p. 61, Pl. XIX *c*.
40. SML., O. 252; N.P. Joshi (1989), 1, Fig. 38, p. 111.
41. *Discourses on Śiva*, ed. M. W. Meister (1984), Pl. 239.
42. *Aparājita.*, 222. 15, p. 521; *Rūpa.*, V. 5, p. 184.
43. Lajjā-Gaurī from Dhank, Fig.$^{+}$ 10.

44. U.P. Shah (1955-56), Fig. 10.
45. R.C. Agrawala (1972), p. 35.
46. T.V.G. Sastri, 'A Stone Relief from Kunidane, Guntur District', *JISOA.*, N.S., Vol. II (1967-68), Pl. 1.
47. P.K. Agrawala, 'The Headless Nude Goddess and her Identification', *Eastern Approaches.*
48. Ramachandra Chintaman Dhere (1978), pp. 26-27.
49. Apte, Sanskrit *Kośa.*
50. P.K. Prabhudesai, *ādiśakti che viśvarūpa, Devīkośa* (Marathi), III (Pune, 1968), p. 499.
51. Wibke Lobo (1982), pp. 80-88.
52. Khajuraho Museum, 1009, Fig.⁺ 50.
53. *Aparājita.*, 222. 12, p. 571.

    In this connection it is remarkable to note that at Kanchi in south India there is a *Śrī-yantra* and a gold '*godhā*', said to have been installed by Ādi Śaṅkarāchārya. Pilgrims come and touch this *godhā*, as it is deemed to be a meritorious act capable of warding off the evils. The author is grateful to Pt. Vishvanath Shastri Datar of Varanasi, an eye-witness, for supplying this information in course of personal talks with him on March 10, 1993.
54. N.P. Joshi (1986), 2, Figs.⁺ 11, 11a.
55. *Padma.*, Pātāla., 105. 132, p. 471.
56. Sarojini Babar, *Kuladaivata* (Marathi), (Bombay, 1974), p. 684.
57. N.P. Joshi (1989), 1, Fig. 30, p. 104, Fig.⁺ 77.
58. *Śiva-purāṇa*, V. Umā., 49. 21-26.
59. Khajuraho, Fig.⁺ 73.
60. Khajuraho, Fig.⁺ 105.
61. The author is grateful to the authorities of the Museums at Indore, Lucknow, Mathura, Dhubela, Jabalpur, Jhansi, Nagpur, Khajuraho and many others, who very kindly allowed him to study, take photographs or prepare the line-sketches of sculptures in their collections. He is also grateful to the American Institute of Indian Studies, Ramnagar, Varanasi, for supply of beautiful photographs to illustrate this paper.

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Liṅga-purāṇa (Mor Ed.), *pūrvārdha*, *adhyāya* 99-103, pp. 351 ff.

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Appendix A

Our data in brief

(AAB., AIIS., MWM.—Negative Numbers in the American Institute of Indian Studies, Ramnagar, Varanasi; GMM.—Government Museum, Mathura; RMJ.—Rani Mahal Collection, Jhansi; SML.—State Museum, Lucknow; RDM.—Rani Durgavati Museum, Jabalpur, Madhya Pradesh; NM.—National Museum, New Delhi; CMI.—Central Museum, Indore, Madhya Pradesh)

1. GMM. 15. 879;
2. Mandhal, O. Divakaran (1984), Fig. 243;
3. Patur, O. Divakaran (1984), Fig. 244;
4. Kannauj, G. K. Agnihotri (1979), Fig. 79;
5. Ellora, R. D. Trivedi (1981), Pl. 201;
6. SML. 40. 216;
7. Deogarh,Deogarh Sculpture-shed, no. 119;
8. Lakhamandal, AIIS-ASI, 711/63;
9. Kanpur, SML. 54. 148;
10. Dhank, AIIS. 210. 47;

11. 11a. Kannauj, N. P. Joshi (1986), 2, Pl. XII;

12. Karvan, U. P. Shah (1953-55), Fig. 2;
13. Sivadvara, Mirjapur, SML. O. 263;
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102. Uttar Pradesh, SML. 60. 368;
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25

Rock-carvings of four river-deities in Māmallapuram

Adalbert J. Gail

There are two granite rock-temples in Māmallapuram which are known in literature as the Varāha-*maṇḍapa* and Ādivarāha-*maṇḍapa*. The latter is referred to in the inscriptions as the Parameśvara-Mahāvarāha-Vishṇu-gṛiham, since Vishṇu in his boar-incarnation was and still is worshipped there today.[1]

The term Varāha-*maṇḍapa* for the first temple cannot be confirmed by any historical sources and appears to be based on certain similarities that the two temples share. In the Ādivarāha temple there is a Varāha image that closely resembles the Varāha relief on the north wall of the Varāha-*maṇḍapa*. Both temples have representations of Gaja-Lakshmī and Durgā on the rear wall. The resemblance of the two reliefs of Gaja-Lakshmī is so striking that one can conclude that one is a direct copy of the other. The Ādivarāha temple is probably the later of the two.

Srinivasan describes the two Gaja-Lakshmī reliefs, as cited below. With regard to the representation in the Varāha-*maṇḍapa*: 'In the Gaja-Lakshmī panel (pl. XLII), Lakshmī as Śrī-devī is seated (*pralamba*) on a full-blown lotus, her two legs resting on a spread-out lotus-leaf below. The other lotus-leaves shown vertically with their stalks behind suggest the lotus tank. Lakshmī is two-armed, her two hands held up symmetrically in *kaṭaka* as if to hold lotuses. A *svarṇa-vaikāksha* crosses her bosom in front and she wears enormous *patra-kuṇḍalas*. Her head-dress is the one peculiar to the Pallava and contemporary sculptures of the South, looking like a *jaṭā-bandha* with a conical peak. On either side of her stand four celestial nymphs diaphanously clothed, the two nearest to her leading and carrying water pitchers in the palm of one of their hands, while the other is placed in *kaṭi*. The two other nymphs follow holding on to the leading water carrier by the girdle or plaited tresses. The other hand in each case is held in *kaṭaka*. Over them are shown the heads of two elephants; that on the proper right shows its broad side while the one on the proper left is in profile. The elephant on the right of Lakshmī is holding up by its trunk and inverting a water-pitcher over the head of Lakshmī. The elephant on the left is coiling its trunk round the water-pitcher held by the nymph below as if in the act of lifting it up.'[2]

Regarding the representation in the Ādivarāha-*maṇḍapa* Srinivasan remarks: 'The two sections of the back wall on either side of the projecting shrine-front contain larger square panels, the panel on the north bearing Śrī-devī (pl. LIV A), very similar to that in the Varāha-maṇḍapam (p. 147). Seated (*pralamba-pāda*) on a full-blown lotus, her feet are resting on the shelf of the lower outer petals of the same. Below it are shown large lotus-leaves and buds. She is two-armed, holding lotus-buds in both the hands. She wears a *karaṇḍa-makuṭa*, over a thick *jaṭābandha*, *patra-kuṇḍalas*, *kaṇṭha-hāra*, *svarṇa-vaikākshas*, *kaṅkaṇas* and *mañjīras*. On either side are two pairs of attendants who are celestial maidens, the two inner carrying pitchers of water. The two outer attendants are not touching the waist of the ladies in front as in the Varāha-maṇḍapam panel but stand a little away and hold something. The northern one holds a basket of flowers in her left hand and with the right hand is picking them out for *archana*. The southern one holds a lotus-bud by the stalk in her left hand and her right hand is in *kaṭaka*. Over them are two elephants, the lateral view of their front portions alone being shown. The northern one is shown lifting up a pot of water and inverting it over the head of Lakshmī, while the southern one grasps the pot of water held by the arms of the attendant below, preliminary to pouring it over the head of Lakshmī. On the whole, the sculpture here is of much finer workmanship.'[3]

Thus the four female figures accompanying Lakshmī are described by Srinivasan once as 'four celestial nymphs', and once as 'two pairs of attendants who are celestial maidens.'

The account of the churning of the milk ocean, from which the goddess Śrī/Lakshmī emerged, is profusely described in the epic-purāṇic literature.[4]

If we, once more, carefully examine the passage about the bath (*snāna*) or the consecration (*abhisheka*) of Lakshmī in all these versions, the *Mahābhārata* and the *Rāmāyaṇa* inclusive, one feature is noticeable in the parallel texts of the *Vishṇu-purāṇa* I, 9, 99-102 and the *Padma-purāṇa sṛishṭikhaṇḍa* 4, 59-62 that is missing in all the other versions with the exception of the *Bhāgavata-purāṇa*.

> *Tataḥ sphurat-kāntimatī vikāsi-kamale sthitā* |
> *Śrīr-devī payasas-tasmād-utthitā bhṛita (Pd. ḋhṛita)-paṅkajā* ||
> *tāṁ tushṭuvurmmudā yuktāḥ śrīsūktena maharshayaḥ* |
> *Viśvāvasu-mukhās-tasyā gandharvāḥ purato jaguḥ* ||
> *Ghṛitāchī-pramukhā brahman (= Vi., Pd. rājan) nanṛituś chāpsaro-gaṇāḥ* |
> *Gaṅgādyāḥ saritas-toyaiḥ snānārtham upatasthire* ||
> *dig-gajā hema- (= Vi., Pd. meghā-)pātra-stham ādāya vimalam jalam* |
> *snāpayāñ-chakrire-devīṁ sarvva-loka-maheśvarīm* ||[5]

Wilson translates: 'Then, seated on a full-blown lotus, and holding a water-lily in her hand, the goddess Śrī, radiant with beauty, rose from the waves. The great sages, enraptured, hymned her with the song dedicated to her praise. Viswavasu and other heavenly quiristers sang, and Ghṛtāchī and other celestial nymphs danced before her.

Gaṅgā and other holy streams attended for her ablutions: and the elephants of the skies, taking up their pure waters in vases of gold, poured them over the goddess, the queen of the universal world.'[6]

Here, as well, the *Bhāgavata-purāṇa* closely follows the *Vishṇu-purāṇa* in that not only the heavenly elephants but also the great rivers in human form participate in the consecration of Lakshmī. It is these rivers which bring the water that is then mixed with other ingredients and poured over Lakshmī by the heavenly elephants. *Bhp.* VIII, 8, 8-13:

> *tataś-chāvir-abhūt sākshāch-chhrī ramā Bhagavatparā* |
> *rañjayantī diśaḥ kāntyā vidyut saudāmanī yathā* ||
> *tasyāṁ chakruḥ spṛihāṁ sarve sa-surāsura-mānavāḥ* |
> *rūpaudārya-vayo-varṇa-mahimākshipta-chetasaḥ* ||
> *tasyā āsanaṁ āninye Mahendro mahad-adbhutam* |
> *mūrtimatyaḥ sarich chhreshṭhā hema-kumbhair-jalaṁ śuchi* ||
> *abhishechanikā bhūmir-āharat sakalaushadhīḥ* |
> *gāvaḥ pañcha pavitrāṇi vasanto madhu-mādhavau* ||
> *ṛishayaḥ kalpayāṁ chakrur-abhishekaṁ yathā-vidhi* |
> *jagur-bhadrāṇi gandharvā naṭyaś-cha nanṛitur-jaguḥ* ||
> *meghā mṛidaṅga-paṇava-murajānaka-gomukhān* |
> *vyanādayan śaṅkha-veṇu-vīnās-tumula-nisvanān* ||[7]

Raghunathan's translation: 'Then there issued forth the Goddess Ramā, who is eternally devoted to the Lord and is Prosperity incarnate, lighting up the quarters with her radiance, like the flash of lightning from the Sudāma mountain. All creatures, gods, Asuras and men, desired her, captivated by her beauty, nobility, youth and complexion. Mahendra brought and placed for her a marvellous throne. The great rivers, taking human forms, fetched sacred waters in golden pots. The earth produced all the herbs used in the consecratory bath. The cows gave their five purifying products, and the season of spring the fruits and flowers that the vernal months (Madhu and Mādhava) bring forth. The sages laid down the ritual of the bath, according to the scriptures. The Gandharvas sang auspicious songs, and the female dancers sang and danced. The clouds played the mṛdaṅga, drum and cymbal, the tabor and the trumpet, the conch-shell, the vīṇā and the flute, raising a mighty concord of sweet sound (8-13).'[8]

We have,. here, an interesting case of a clear correlation between the Pallava Gaja-Lakshmī images with the four river goddesses (Pl. 25.1) on the one hand and a particular text version of the *amṛita-manthana* myth on the other, more precisely the *Vi.-Pdsṛi.* version. The *BhP.* version, although written in south India, could not have been known to the Pallava artists, since the reliefs were carved during the reign of

Narasiṁhavarman I Māmalla (A.D. 630-668) and the *BhP.* was not composed before the 8th century.[9]

Who could have been the four river goddesses that the Pallavas had in mind while they carved the four female figures?

At this place we have to put aside our textual reference, for although it does mention 'Gaṅgā and the others' (*Gaṅgādyāh*), it does not specify them individually. A list of the rivers, such as in the *MBh.* VI, 10, 13-36, also does not offer any assistance in the selection of a special group of four rivers.

Whether Yamunā belongs to the group of four seems to be rather doubtful. If the Yamunā had played an important role as a river goddess in the south, one should expect to find the motif of 'Gaṅgā et Yamunā aux portes des sanctuaires de l'Inde.' [10] However, this very conspicuous motif found on the north Indian temples is missing in the south.

The Kāverī as the southern Gaṅgā played an important role in the consciousness of the Pallavas, as the inscription of Mahendravarman I in Thiruchirapalli testifies. She is the beloved of the Pallava king (*pallavasya dayitā*).[11]

If we now hypothetically exclude or at least question the possibility that (a) other than the Gaṅgā no other particular river was considered, that (b) the remaining three were rivers exclusively in the Pallava territory (Toṇḍai-maṇḍalam), then, (c) between the Gaṅgā in the north and the Kāverī in the south, the two great rivers, flowing into the eastern ocean, namely the Godāvarī and the Kṛishṇā, could be considered. These rivers, although in the south, are flowing through famous places to all-Indian consciousness.[12]

The Pallavas appear to have exercised political power in the area to the north of Toṇḍai-maṇḍalam before the conquest of large parts of Andhra Pradesh by the Eastern Chāḷukyas in A.D. 631. A Pallava inscription from Dhānyaghaṭaka (Amaravati, A. P.) states that the Pallava ruler Siṁhavarman II, who reigned till *c.* A.D. 575,[13] on his way back from a campaign in the north crossed the Bhāgirathī (i.e. Gaṅgā), the Godāvarī and the Kṛishṇaveṇṇā (= Kṛishṇā) and visited Dhānyaghaṭa, sacred to Buddha, in order to pay his respects, as a lay-follower (*upāsaka*), to the tutelar deities and Buddhist congregation.[14]

No matter how this evidence may be appraised politically, religiously and geographically, it shows that between the Gaṅgā and the Kāverī the rivers Godāvarī and Kṛishṇā had a special status for the Pallavas.

The interpretation presented here is naturally also applicable to other women carrying *kumbhas* in Gaja-Lakshmī representations, such as the Gaja-Lakshmī image, 9th/10th century A.D., U.P., from the Prince of Wales Museum, displayed in the exhibition in Berlin in 1992.[15]

Notes and references

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4. K. Rüping, *Amṛtamanthana und Kūrma-Avatāra* (Wiesbaden, 1970), p. 31.
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26

An iconographic study of the figures of eight great Bodhisattvas in Lalitagiri, Udayagiri and Ratnagiri in Orissa

Debala Mitra

Introductory remarks

The popularity of the *maṇḍala* of eight great Bodhisattvas (*Ashṭa-mahā-Bodhisattva-maṇḍala*), either grouped around or flanking (four on either side) Śākyamuni Buddha or one of the five well-known transcendent Tathāgatas (commonly called Dhyāni-Buddhas) is manifested by their widespread representations, in various materials, found in the major part of the Buddhist world like India, Nepal, Tibet, Central Asia, China, Korea, Japan and Java.[1] These particular Bodhisattvas are: (i) Samantabhadra, (ii) Maitreya, (iii) Avalokiteśvara, (iv) Kshitigarbha, (v) Khagarbha (also known by the name of Ākāśagarbha, both *kha* and *ākāśa* signifying the sky), (vi) Vajrapāṇi, (vii) Mañjuśrī and (viii) Sarvanivaraṇa-Vishkambhin.

The present study does not include other Bodhisattvas who are also well-recognized. Thus, the *Nishpannayogāvalī*[2] of Mahāpaṇḍita Abhayākaragupta prescribes four sets, each of sixteen Bodhisattvas, in four *Maṇḍalas*, namely *Vajradhātu-maṇḍala* (*Maṇḍala* no. 19),[3] *Trichatvāriṁśadātmaka-Mañjuvajra-maṇḍala* (*Maṇḍala* no. 20),[4] *Dharmadhātu-Vāgīśvara-maṇḍala* (*Maṇḍala* no. 21)[5] and *Durgatipariśodhana-maṇḍala* (*Maṇḍala* no. 22).[6] The names of some of these Bodhisattvas being common in these *Maṇḍalas*, there are altogether twenty-four Bodhisattvas. Benoytosh Bhattacharyya has furnished an account of the iconographic features of these twenty-four Bodhisattvas.[7] These four sets, however, exclude the name of Vajrapāṇi, one of the eight great Bodhisattvas. Of the seven other great Bodhisattvas noticed in the sets of these four *Maṇḍalas*, *Maṇḍala* no. 19 includes only Maitreya (who has the same form as that of Akshobhya) and Samantabhadra (who is similar in form to Amoghasiddhi), *Maṇḍala* no. 20 Maitreya, Mañjuśrī and Sarvanivaraṇa-Vishkambhin (all the three having their individual forms), *Maṇḍala* no. 21 Samantabhadra, Kshitigarbha, Ākāśagarbha, Avalokiteśvara and Sarvanivaraṇa-Vishkambhin (all the five with independent forms) and *Maṇḍala* no. 22 Maitreya and Samantabhadra (both having their individual forms).

In the *Piṇḍīkramokta-Akshobhya-maṇḍala* (*Maṇḍala* no. 2) of the *Nishpannayogāvalī* the eight great Bodhisattvas[8] are stationed in the third circle around Akshobhya—Maitreya and Kshitigarbha on the east, Vajrapāṇi and Khagarbha on the south, Lokeśvara and Mañjughosha on the west and Sarvanivaraṇa-Vishkambhin and Samantabhadra on the north. But in this *Maṇḍala;* these Bodhisattvas do not have their independent or individual forms; the forms of all the Bodhisattvas are identical with those of their six-armed *kuleśas* (*ete'shṭau sva-kuleśa-samāḥ*), the only minor exception being in the case of Maitreya whose principal hand holds the twig of the *nāgakesara* flowers and leaves.

The *Kālachakra-maṇḍala* (*Maṇḍala* no. 26) of the *Nishpannayogāvalī* describes eight (rather seven) Bodhisattvas (along with their *śaktis* or Prajñās) occupying the two sides of the four gates of the third circle of the *maṇḍala.*[9] These six-armed Bodhisattvas are: Samantabhadra and Khagarbha, respectively on the left and right sides of the east gate, Vajrapāṇi and Kshitigarbha on the sides of the south gate, Dharmadhātuvajra and Sarvanivaraṇa-Vishkambhī on the sides of the west gate and Vajrapāṇi (resembling Samantabhadra) and Lokeśvara on the sides of the north gate. Curiously enough, Vajrapāṇi is repeated twice and Maitreya is absent. Further, Dharmadhātuvajra is introduced in place of Mañjughosha (a form of Mañjuśrī); the central deity of the *Dharmadhātu-Vāgīśvara-maṇḍala* (*Maṇḍala* no. 21) of the *Nishpannayogāvalī* is Mañjughosha.

Different Buddhist centres of India yielded a good number of two-armed images of eight great Bodhisattvas flanking or surrounding a central deity who is mostly Śākyamuni Buddha and rarely a Tathāgata or even a Bodhisattva like Avalokiteśvara. The identification of some of these Bodhisattvas sometimes poses problems due to varying attributes prescribed by texts and portrayed by artists as per their understanding. To make the matter complicated, the same attribute is prescribed for two or even more Bodhisattvas (including a Bodhisattva who does not belong to the group under discussion). In some cases the depictions of attributes are also not clear and free from doubts. The proper identification becomes all the more difficult, almost impossible, when the figures are defaced.

In respect of the representations of the two-armed Maitreya, Avalokiteśvara, Vajrapāṇi and Mañjuśrī there are practically no problems, thanks to their characteristic and distinctive attributes. However, the identification of the images of the other four, namely Samantabhadra, Khagarbha (Ākāśagarbha), Kshitigarbha and Sarvanivaraṇa-Vishkambhin, are often perplexing due to divergent prescriptions and varieties of representations. Thus, Samantabhadra in *Maṇḍala* no. 21 of the *Nishpannayogāvalī* is required to show the *vara-mudrā* with his right palm and to hold the *utpala-khaḍga* (a sword on a blue lotus) with his left hand and in *Maṇḍala* no. 22 to bear the *ratna-mañjarī* (a cluster of jewels) with his right palm, the left clenched fist being on the hip. In *Maṇḍala* no. 19, he is noted as resembling Amoghasiddhi who bears in his right palm (in *abhaya-mudrā*) a *viśva-vajra* (double thunderbolt), the left palm being on the lap. According to *Sādhana* no. 18,[10] which is *Lokanātha-maṇḍala*, Samantabhadra shows the *vara-mudrā* and holds *ratnotpala* (a jewel on an *utpala*). Antoinette K. Gordon notes the *vitarka-mudrā* shown by the right hand and the left hand showing the *vara-mudrā* and holding the *chintāmaṇi* (wish-fulfilling gem) or scroll.[11] The symbolic object for Samantabhadra, as noted by M. Yoritomi, is a jewel.[12]

Sarvanivaraṇa-Vishkambhin, according to *Maṇḍala* no. 20 of the *Nishpanna-yogāvalī*, shows the *bhūsparśa-mudrā* with one of his left palms and the gesture of pacification with the corresponding clenched right palm having the index-finger and thumb together (apart from one pair of palms in *samādhi-mudrā* and another pair bearing a bow and an arrow) and in *Maṇḍala* no. 21 holds a *kṛipāṇa* (sword, dagger) with his right hand and a banner marked with a *viśva-vajra* with his left hand. Thus, the sword is an attribute of both Samantabhadra and Sarvanivaraṇa-Vishkambhin. Again, the banner is an attribute of Sarvanivaraṇa-Vishkambhin and Jñānaketu, one of the group of sixteen Bodhisattvas described in *Maṇḍala* nos. 20 and 22. Vishkambhin, according to *Sādhana* no. 18 of the *Sādhanamālā*, shows the *vara-mudrā* and *ratnottama* (excellent jewel) and according to *Sādhana* no. 280 a *sāyaka* (arrow, sword) with his right hand and the *tarjanī* with the left palm. The *ratna* is an attribute of not only Samantabhadra and Vishkambhin but of Ākāśagarbha (Khagarbha). The *mudrās* and attributes of Vishkambhin, as noted by Gordon, are: *vitarka* and *varada*; Chandra (the moon), *pustaka* (book); *kapāla* (skull-cup) and *kartrikā*.[13] The symbolic objects, as recorded by M. Yoritomi, are a pot with jewel, lotus-stalk (in the left hand) and *vara-mudrā* (shown by the right hand), a jewel-globe on a lotus-petal (in the right hand) and a sword at side.[14] The flag is an attribute of Sarvanivaraṇa-Vishkambhin according to the *Ashṭamaṇḍalaka-sūtra*.[15]

According to *Maṇḍala* no. 21 of the *Nishpannayogāvalī*, Ākāśagarbha showers all kinds of jewels (*sarvaratnavarshī*) with his right hand, the left hand bearing the *chintāmaṇi* gem. In *Sādhana* no. 18 of the *Sādhanamālā* Khagarbha holds the *chintāmaṇi* gem and imparts boon (*vara*), while *Sādhana* no. 280 prescribes a *ratna* (jewel) for his right hand and *tarjanī-mudrā* for the left palm. Two illustrations (bronzes nos. 1M8 and 1A1) of Ākāśagarbha in *Two Lamaistic Pantheons* appear to hold the stalk of a lotus with the right hand, the left palm being in *vara-mudrā* and a third (a drawing) shows a globular jewel in the right palm and the *varada mudrā* with the left palm.[16] The *mudrās* and attributes of Ākāśagarbha, according to Gordon,[17] are: *vitarka*, *abhaya* and *varada mudrās*; Sūrya (the sun), *pustaka*, flower (in the right hand), stem of *padma* (in the left hand) from which a *khaḍga* (sword) rears up and flower bearing the sun-disk (in the right hand). The *Mahāvairochanābhisambodhi-sūtra* enjoins that Ākāśagarbha should hold a flaming sword on a lotus.[18] Yoritomi notes a sword and a *vajra* (in the right hand) and a blue lotus (in the left hand) as attributes of Ākāśagarbha.[19]

In *Maṇḍala* no. 21 of the *Nishpannayogāvalī* Kshitigarbha is enjoined to hold a lotus supporting a *kalpadruma* with his left hand, the right palm being *kṛita-bhūsparśa.* According to *Sādhana* no. 18 of the *Sādhanamālā* his attributes are the *abhaya-mudrā* and a *kalaśa* (water-pot, pitcher), while *Sādhana* no. 280 prescribes a *chakra* (wheel) in his right palm, the left palm showing the *tarjanī.* The *mudrās* and symbols, as given by Gordon, are: *vitarka*, *varada* or *abhaya*; *khakkhara* (a staff with metal rings to make jingling sounds, monk's staff) and *chintāmaṇi* gem, *pustaka*, *kalaśa* and *pātra* (pot, bowl).[20] According to the *Mahāvairochanābhisambodhi-sūtra* and the *Amoghapāśa-sūtra* Kshitigarbha holds a lotus.[21] The symbolic objects in his hands, as noted by M. Yoritomi, are: rice-cake, jewel-globe (in the left hand), jewel-globe on a lotus-petal (in the right hand) and *varada mudrā* (with the left hand).[22] The *kalpadruma* being a tree of heaven, the sculptors and artists are at liberty to fashion its form as per their imagination.

Behind the Rudravarṇa-mahāvihāra at Patan (in Nepal) is situated a *stūpa.*[23] The niches of its drum accommodate a large number of Buddhist images. These images include the bejwelled figures of a set of sixteen Bodhisattvas, seated in *sattvaparyaṅkāsana*; their pedestals are inscribed with their names. Their attributes in hands conform mostly to those prescribed by *Maṇḍala* no. 21 of the *Nishpannayogāvalī.* Among them is seen Samantabhadra holding with his left hand the stalk of an *utpala* supporting a sword (standing on its hilt), the right palm being in *vara-mudrā.* In the left palm of Ākāśagarbha is a cluster of jewels in the form of beaded strings, the raised right palm bearing the *chintāmaṇi* gem (as conceived by the sculptor). With his right palm in *bhūmisparśa-mudrā*, Kshitigarbha holds with the left hand the stalk of a lotus, emerging from which is the luxuriant branch of the *kalpadruma* (as imagined by the sculptor). Grasping with his right palm the hilt of a sword (aslant), Sarvanivaraṇa-Vishkambhin holds with his left palm the pole (capped by a *viśva-vajra*) of a flag.

The popularity of the group of eight great two-armed Bodhisattvas in the Buddhist centres of Lalitagiri, Udayagiri and Ratnagiri, all in District Jajpur (formerly Cuttack), Orissa, is evidenced by their representations, either individually on sculptures or in an assemblage in a single sculpture representing a central deity, usually Śākyamuni Buddha. When represented individually, these Bodhisattvas are arrayed usually against the interior walls of a shrine having the image of Buddha; rarely they might have been fixed within the exterior niches of a temple. These three contiguous hills form a triangle, the distances from Lalitagiri to Udayagiri and from Udayagiri to Ratnagiri being respectively 3·5 km. and 5·5 km., as the crow flies.

Lalitagiri

Lalitagiri is particularly remarkable for large-sized sculptures of Bodhisattvas. At least three such groups of individual figures of eight Bodhisattvas can be made out from the available sculptures. Ramaprasad Chanda during his visit to Lalitagiri (Nalatigiri, Nalitigiri, Naltigiri) and some other sites in Orissa during the financial year 1927-28 noticed briefly a few sculptures on the Laṇḍā (Nandā) hill of Lalitagiri.[24] He further informed us that 'more than forty years ago a zemindar, Ramgovinda Jagadev, removed four images from the Nalatigiri to Kendrapara and later on two images have been removed to Padamdaspur by another zemindar.' Among the sculptures collected from the house of the zemindar at Kendrapara by Chanda for the Indian Museum (Calcutta), two represent Bodhisattvas.[25]

I

Four of the sculptures of the first group described below were found fixed within niches of the exterior walls of an unfinished modern temple (Pl. 26.1)[26] in the compound of a *maṭha* (on the Laṇḍā hill) established by a *sādhu* belonging to the sect of the *yogī* Arakshit Das; in close proximity of this temple was a colossal khondalite image (Pl. 26.2) of Buddha seated in *bhūmisparśa-mudrā* 'said to have been exhumed from a neighbouring brick mound.' All the sculptures fixed to the walls of the modern temple, two old carved jambs of a door forming the door-jambs of the modern temple and the colossal image of Buddha were shifted in 1960-61 to the sculpture-shed after its construction near the top of the Laṇḍā hill. I feel that originally all the sculptures of eight Bodhisattvas of this group and the colossal image of Buddha were inside the shrine-chamber of a monastery. This monastery might have been Monastery 3, recently unearthed by the Bhubaneswar Circle of the Archaeological Survey of India. Monastery 3, facing east, is immediately to the west of the *maṭha*-building and its front part almost touches the back side of the building; in fact, the front porch of the ancient monastery practically vanished due to quarrying for building materials and hunting for sculptures and architectural components. The shrine-chamber, located in the central part of the back (west) side of the monastery, is unusually spacious enough to accommodate the image of Buddha (in the centre of the back side) and the sculptures of the eight Bodhisattvas by the sides of walls. Interestingly enough, the spacious shrine-chamber, as far as I recall, is isolated from the cells of the monastery, as on its either side and abutting it there is not a single cell. It is likely that the colossal image of Buddha served originally as the presiding deity of the shrine-chamber of this monastery and the carved door-jambs formed the jambs of either the door-opening of the shrine-chamber, or more probably of the entrance door-opening of the monastery.

Fortunately, all the images of eight Bodhisattvas of the first group could be located. Made of khondalite, these large-sized images are homogeneous in composition, style and princely ornaments, though the height is not uniformly maintained. The workmanship of these two-armed images, remarkable for divine grace and physical beauty, is fine, suggesting that the person (or persons) responsible for these sculptures was a master-artist (or master-artists). Stylistically, the images are not later than the ninth century A.D.

The image (No. 17 of Sculpture-shed) of Samantabhadra[27] (Pl. 26.3 and Pl. 26.1, right) is 224 cm. high, 92 cm. wide and 45 cm. thick (at the base). But for the broken tip of the nose and the damaged right forearm, the image is in a good state of preservation. The top corners of the back-slab are curved. This image and the following one were shifted from the niches of the unfinished modern temple which once existed in the *maṭha*-compound of the Laṇḍā hill of Lalitagiri.

With half-closed eyes, a placid face and *trivali* round the neck, the Bodhisattva is standing with a slight flexion on the beaded pericarp of a double-petalled lotus. He is draped in a diaphanous *antarīya* with wavy folds between the legs and an *uttarīya* worn in an *upavītī* fashion and with an end tucked on his left shoulder. The *antarīya* is held by a thick round girdle with a disc(defaced flower?)-shaped central piece from which hang down two chain-shaped ends. He is bejewelled with beaded anklets strung with tiny bell-shaped pendants, a *ratnopavīta* of three beaded strings held by a flower-shaped clasp, a thick *valaya* (round his left wrist), armlets with a beaded band having an ornate triangular central piece, a necklace with a central flower, a short beaded *hāra*, ornate *kuṇḍalas*, a short ear-ring near the top of the lobes and a *mukuṭa* with a cable-shaped band and an ornate roughly-triangular projected piece at the centre and at two sides. The ends of the ribbon are seen on either side of the head. Tied by a string with a central ornate triangular piece, the hair is neatly gathered on the top of the head, while some coiled locks fall on the shoulders and sides. Behind his head and shoulders is a plain ovalish halo.

With his right palm in *varada mudrā* on a broken lotus, the thick stalk of which rises below the double-petalled lotus on which Samantabhadra is standing, the Bodhisattva holds with the thumb and the middle finger of his raised left palm the long stalk of an *utpala* supporting a sword standing on its hilt. From this long stalk, which rises from the bottom of the double-petalled lotus on which the Bodhisattva is standing, have issued smaller stalks ending in two leaves and three buds and a stalked double-petalled lotus supporting a two-armed goddess seated in *mahārājalīlā*. Another two-armed goddess, also seated in *mahārājalīlā*, is on a double-petalled lotus, the stalk of which has issued from the stalk (from which have sprung two stalked leaves) of the lotus supporting the right palm of the Bodhisattva. The image conforms to the prescription of *Maṇḍala* no. 21 of the *Nishpannayogāvalī* so far as the attributes of Samantabhadra are concerned.

Behind both the goddesses is a raised halo or back-slab with a semicircular top. Wearing a *śāṭī* and an *uttarīya* worn in an *upavītī* fashion, both are bejewelled with *valayas* (one around each wrist), armlets with a beaded band, a beaded *hāra*, *kuṇḍalas* and a *mukuṭa* with a beaded band and three triangular projections. The hair is artistically gathered in the form of a bun on the top of the head. The one on the sinister holds a sword vertically (as in the case of the Bodhisattva) with her slightly-raised right hand, her left palm, resting on the seat, holding the string of a circular *pāśa.* The corresponding goddess on the dexter shows *varada mudrā* with her right palm, the slightly-raised left hand holding the stalk of a double-petalled lotus supporting a conical object (*maṇi* ?). Below the stalked lotus-seat of this goddess is a bejewelled male with folded hands and looking up. He is seated with one knee raised, the other leg resting on a plain seat. His hair is gathered in a bun on the back of his head. Behind his left side is a raised background.

At the top corners of the back-slab is a garland-bearing bejewelled *vidyādhara* rushing through clouds. The edge of the two sides of the back-slab has a row of tongues of flames, immediately beyond which is a beaded band, running vertically.

The sinister-part of the back-slab near the left thigh of the Bodhisattva is inscribed, in four lines, with the Buddhist creed in characters of the ninth century A.D. The text of the Buddhist creed with the *siddham* symbol at the beginning of the first line is as below:

(L. 1) *ye dharmmā hetu-prabhavā hetuṁ te-*
(L. 2) *shāṁ tathāgato hy=avada-*
(L. 3) *t=teshāṁ cha* (damaged) *yo nirodha e-*
(L. 4) *vaṁ vādi*(*dī*) *mahā-śramaṇa*(*ṇaḥ*).

The image (No. 14 of Sculpture-shed) of Kshitigarbha (Pl. 26.4 and Pl. 26.1, left) is in a good state of preservation but for his missing left forearm. It is 219 cm. high, 94 cm. wide and 44 cm. thick (at the base). It was shifted from a niche of the unfinished modern temple.

With a slightly-smiling face, half-closed meditative eyes and *trivali* round the neck, the Bodhisattva is standing with a slight flexion on a *viśva-padma.* He is clad in an *antarīya* with frizzled folds between the legs and a plain *uttarīya* worn in an *upavītī* fashion. The *antarīya* is fastened by a cable-shaped thick double string going round the waist; from the knot which is covered by a lotus-shaped motif hang two ends on his right thigh and the loop on his left thigh. He wears band-like anklets with a few coiled roundels, a *ratnopavīta* of three beaded strings with a clasp in the form of a roundel having petals below and above, a thick *valaya* round his right wrist, armlets with a beaded band having a central roughly-triangular ornate piece with flowers and leaves or petals, a necklace with three bands clasped by an elaborate motif having a flower in the centre, a beaded *hāra*, *makara-kuṇḍalas* and a *mukuṭa* with a band decorated with discs (one inside another) and an ornate triangular central piece (projecting upwards) with motifs bordered on two sides by foliated leaves or petals; there are two such ornate triangular pieces, one on each side of the *mukuṭa*. On either side of the *mukuṭa* is seen the end of the ribbon. Tied by a string with a central ornate piece, the hair is gathered on the top of the head, allowing a few coiled locks to fall on the shoulders and sides of the neck.

With his right palm in *varada mudrā* against a lotus with a long stalk rising from the bottom, Kshitigarbha holds with his slightly-raised left palm (broken) a long stalk (which rears up from the bottom) ending in a scroll above a foliated part; from the scroll have reared up three short thick stalks, each ending in a globule (the central one is inconspicuously pointed at the top) with a ring at the base. Presumably, these three stalks with roundels (*ratnas*?) represent the branches of a *kalpadruma*. Around the head and the shoulders of the Bodhisattva is a halo, narrowing downwards. At the top corners of the oblong back-slab is a bejewelled garland-bearing *vidyādhara* rushing through the clouds. Near the edge of the back-slab by the sides of the Bodhisattva are tongues of flames.

From each of the two main stalks (which rear up from the bottom) have issued small stalks ending in buds and leaves and a double-petalled lotus. These two lotuses support each a female divinity, seated with one knee raised and the other leg resting on the seat. Both of them wear *śāṭīs*, *valayas* (bangles in addition in the case of the one on the sinister), armlets in the form of a beaded band, a beaded *hāra* in the case of one and a necklace with a string and closely-arrayed pendants in the case of the other, ear-ornaments and a *mukuṭa* (cable-shaped band with a central floral pattern in the case of the one on the dexter). With one forearm hanging from the knee, both of them hold with the other palm (resting on the seat) a stalk branching into three small stalks capped by roundels (*kalpadruma*?) as in the case of the Bodhisattva. Both of them wear bun-shaped coiffure. Behind their back is the halo or raised background with a semicircular top.

Below the lotus-seat of the female deity on the dexter is a bejewelled male figure with a dagger attached to his belt. With large round open eyes and bun-shaped coiffure (tied by a string), he is seated with folded hands on a plain seat with one knee raised and the other leg placed on the seat. He is looking up towards the Bodhisattva. Against his left side is a raised background with a semicircular top.

The topmost part of the image (No. 43 of Sculpture-shed) of Mañjuśrī (Pl. 26.5) is broken off.[28] The image with the nose broken is 93 cm. wide and 44 cm. thick (at the base), the height of the available part being 196 cm. This image was found in the open, some metres to the north of the unfinished temple.

With half-closed eyes, *trivali* round the neck and a tiny raised circular mark on the forehead, the Bodhisattva is standing with a slight flexion on the pericarp of a double-petalled lotus. He is robed in an *antarīya* (with a part showing folds between the legs). The *antarīya* is fastened by a girdle, decorated with flowers; from the knot with a central ornate piece flanked by the head of a *makara* hang on his left thigh the loop and on the right thigh the end of the girdle. He is lavishly adorned with beaded anklets strung with bell-shaped pendants, a *ratnopavīta* of three beaded strings fastened by two elongated flower-shaped clasps, thick *valayas*, a ring around the little fingers, armlets with a band having two beaded rows and an ornate roughly-triangular central piece (with a *makara*-head at either end of its base) rising upwards and an underlying row of *kīrtimukhas* (practically defaced) holding ends of the wavy beaded garlands and tiny pendants, a necklace with a beaded string together with the rings of a cylindrical amulet (from which hangs a large disc), tiger-nails and discs, a short beaded *hāra*, large circular ear-studs and a *mukuṭa* with four rows of beaded strings clasped by a central oblong flower and a projected half-flower at two ends. The two ends of the ribbon of the *mukuṭa* are seen on the sides. The Bodhisattva wears the *śikhaṇḍaka-kākapaksha* coiffure. The front side of the central *śikhaṇḍaka* is decorated with a beaded base-band, above which is a *kīrtimukha*(?) within a triangular composition lined with coiled leaves or petals on two sides. The base of the two *kākapaksha*-locks, which hang down on the shoulders, is tied by a broad beaded band.

Around the head and shoulders of the Bodhisattva is a plain halo (top part missing) inscribed with the Buddhist creed (partly available) in two lines in characters of about the ninth century A.D.

With his right palm in *varada mudrā* against a stalked lotus, Mañjuśrī holds with the thumb and the middle finger of his left palm a long stalk ending in an *utpala* supporting a book. This stalk (from which has sprung up a stalked bud) and also the stalk of the lotus (behind the right palm of the Bodhisattva) rear up from the foliated parts of two thick stalks emanating from the rough stem of the double-petalled lotus supporting the feet of the Bodhisattva.

From the foliated parts of both the stalks have risen three stalks, two ending in buds and one (the central one) in a double-petalled lotus on both the flanks. Seated in *vajra-paryaṅkāsana* on these two lotuses is a two-armed goddess wearing a *śāṭī*, *valayas*, armlets, a beaded *hāra*, *kuṇḍalas* and a *mukuṭa* with a beaded band and three triangular ornate projections. Tied by a string the hair is arrayed in a bun-shaped coiffure on the top of the head. Behind them is a raised background or halo. The goddess on the dexter shows *varada mudrā* with her right palm, the left palm resting on the seat. In the grip of the right palm of the goddess on the sinister is a sword held vertically, while the left palm rests on the seat.

The two sides of the back-slab above the goddesses present a row of tongues of flames near the edge.

The image (No. 15 of Sculpture-shed) of Avalokiteśvara (Pl. 26.6) is 223 cm. high, 95 cm. wide and 45 cm. thick (at the base). But for the damaged nose, it is in a good state of preservation. It was shifted from a niche of the unfinished modern temple.

With half-closed eyes, a placid face (somewhat grave) and *trivali* round the neck, the Bodhisattva is standing with a slight flexion on a double-petalled lotus. Draped in a transparent *antarīya* with a frizzled part between the legs, he is bejewelled with anklets having bells strung together with beads, a *ratnopavīta* with three beaded strings held at intervals with a flower-shaped clasp, a thick girdle with a central piece in the shape of an elongated flower, flanked on either side by a *makara*-head, a ring around his little fingers, thick *valayas* (one round each wrist), elaborate armlets, with three beaded strings clasped together in the centre by a projected ornate piece having a flower at its base, from which hangs down a row of clasps (mostly in the form of *kīrtimukhas*) holding a row of beaded garlands and somewhat bell-shaped pendants, a necklace with three bands (the central one is convex) clasped by an elaborately-carved floral motif, a thick *hāra* with a central floral motif flanked by a *makara*-head at either end, *makara-kuṇḍalas*, tiny rings near the top of the ear-lobes and a *mukuṭa* with three beaded bands having two flower-shaped clasps and a high elongated richly-carved (roughly triangular) central piece. On either side of the *mukuṭa* is the ribbon-end. With some locks of hair falling on the shoulders and by the sides of the neck, the hair is tied neatly by a triple string in the form of a *jaṭā-mukuṭa*. The triple string has a central triangular clasp with a flower at its base and a seated figure of Amitābha near the top.

With his right palm in *varada mudrā* against a lotus, the stalk of which has risen from the scroll of the stalk attached to the low stem of the double-petalled lotus below the feet of Avalokiteśvara, the Bodhisattva holds with the thumb and middle finger of his left palm, a long stalk (issuing from the scroll of the base-stalk) ending in a lotus (broken off leaving the outline only); from the stalk have issued two small stalks, one ending in a lotus-leaf and another a lotus-bud. Around the head and shoulders of the Bodhisattva is a plain ovalish halo.

On either side of the halo is a flying bejewelled garland-bearing *vidyādhara* with socked feet rushing through clouds towards the head of the Bodhisattva. The back-slab with curved top corners, has, near its edge (below the *vidyādharas* and above Tārā and Bhṛikuṭī), tongues of flames on either side of the Bodhisattva.

From either side of the stalk of the lotus below the feet of the Bodhisattva has issued a thick stalk, foliated below a scroll, from which rear up two stalked buds, a stalked leaf and a stalked double-petalled lotus, apart from two stalks ending each in a lotus (one against the right palm of the Bodhisattva and the stalk of the other held by the left palm of the Bodhisattva). Seated on the double-petalled lotus is the two-armed Tārā on the dexter and the four-armed Bhṛikuṭī on the sinister.

Dressed in a *sāṭī*, Tārā is decked in wide bracelets with criss-cross pattern between two *valaya*-like front piece and rear piece, beaded armlets with a central flower, a necklace with thin pendants (closely arrayed side by side), beaded *kuṇḍalas* and a *mukuṭa* with a criss-crossed band having an ornate triangular piece in the centre. The hair is rolled above her right shoulder. Holding with her left palm the short stalk of an *utpala*, she is opening one of its petals with her right palm. Behind her back is a raised halo.

Seated in *vajra-paryaṅkāsana* and draped in a *sāṭī*, Bhṛikuṭī, devoid of ornaments, is holding with her upper right, upper left and lower left hands, a rosary, a *tridaṇḍa* and a small *ghaṭa* respectively, the lower right palm being in *varada mudrā.* Against her *jaṭābhāra*, tied by a string, is a small *stūpa.* Behind her back is the raised halo.

The composition of the image (No. 16 of Sculpture-shed) of Maitreya[29] (Pl. 26.7) with the back-slab (224 cm. high, 91 cm. wide and 44 cm. thick at the base) having rows of tongues of flames and garland-bearing *vidyādharas* rushing through clouds is similar to that of the image of Avalokiteśvara. The top corners of the back-slab are curved. It was shifted to the Sculpture-shed from a niche of the unfinished modern temple.

Clothed in an *antarīya* with wavy folds between the legs, the Bodhisattva is adorned with anklets with the band holding the rings of bells, a *ratnopavīta*, similar to that of Avalokiteśvara, a girdle with its band, decorated with a row of diamonds having coiled petals and a central elongated flower, and an underlying row of *kīrtimukhas* from the mouths of whom have issued beaded wavy garlands and beaded pendants, a ring around the little fingers, thick *valayas*, armlets, similar to those of Avalokiteśvara, a necklace decorated with a row of diamonds (spaced by half-flowers) and having a row of pendants, a short beaded *hāra*, beaded *kuṇḍalas*, short rings near the top of the ear-lobes and a *mukuṭa*, analogous to that of Avalokiteśvara. On either side of the *mukuṭa* is the end of the ribbon. Tied by a triple string with an ornate central projection, the hair is gathered in neat *jaṭā-mukuṭa* on the top of the head, allowing several locks of hair to fall on the shoulders and by the sides of the neck. The lower part of the ornate central projection of the triple string is decorated with a flower, above which is a small *stūpa.* Behind the head and shoulders of the Bodhisattva is a plain oval halo. The Bodhisattva is standing with a slight flexion on a double-petalled lotus.

Maitreya presents half-closed eyes, placid (somewhat grave) face and *trivali* round the neck. Behind his right palm, in *varada mudrā,* is a lotus with a long stalk. His slightly-raised left palm holds with the thumb and middle finger a long stalk ending in a cluster of *nāgakesara* flowers and leaves; from the coiled part of the stalk has sprung up the short stalk of a bud.

Both the long stalks rear up from the foliated part of two main stalks running below the lotus supporting the feet of the Bodhisattva. From the foliated part of these two stalks have sprung up four small stalks (three on the sinister ending in buds and two on the dexter also ending in buds and the third in a lotus-leaf), one of which on both flanks ending in a double-petalled lotus. Both the lotuses support a two-armed female deity, seated with one knee raised, the other leg placed on the lotus-seat. Both of them wear a *śāṭī* held by a plain band, *valayas* (one around each wrist), band-like armlets, a beaded *hāra* with a central rounded piece, *kuṇḍalas* and a *mukuṭa* with a triangular-projection; the band of the *mukuṭa* of the one on the dexter is decorated with a row of diamonds, while that of the other bear a criss-cross pattern. The coiffure of the one on the dexter is in the form of a bun on the top of the head, while the hair of the other is gathered above her left shoulder. From the left elbow of the one on the dexter has risen up the stalk of an *utpala*, an attribute associated with Tārā; above the right elbow of the other is also a stalked *utpala*. The other palm of both of them rest on the seat. Behind them is a raised halo.

The edges of the back-slab below the garland-bearing *vidyādharas* and above the goddesses have a row of tongues of flames.

The khondalite two-armed image of Ākāśagarbha (also called Khagarbha) is now standing against the compound-wall flanking the entrance-opening leading to the Hanumān (Mahāvīra) temple at Mahanga,[30] District Jajpur. The image (Pl. 26.8) is about 225 cm. high, the width being 97 cm. In style, workmanship and composition, this image bears a close resemblance to the above-noted five images and the images of Vajrapāṇi and Sarvanivaraṇa-Vishkambhin housed in the Indian Museum, Calcutta.

With half-closed eyes, a placid face, *trivali* round the neck and a raised circular mark on the forehead, Ākāśagarbha is standing with a slight flexion on a double-petalled lotus with a low plain stem. Clad in an *antarīya*, he shows *varada mudrā* with his right palm resting against a lotus, the stalk of which descends down and issues from the foliated part of a stalk going down and meeting the stem of the main double-petalled lotus. The thumb and the middle finger of his left palm holds the long stalk of an *utpala* supporting a circular jewel (*chintāmaṇi*) resting on a base. The attributes in his hands are those prescribed by *Sādhana* no. 18 of the *Sādhanamālā*.

The Bodhisattva is adorned with anklets, a *ratnopavīta* of three beaded strings with two floral clasps, thick *valayas* (one round each wrist), a ring round the little fingers, armlets with a beaded band (looking like four strings, the central two beaded and the remaining two plain), clasped by an ornate projected piece, with an underlying row of *kīrtimukhas* holding wavy beaded garlands and small pendants, a broad necklace with an ornate central piece (somewhat damaged), a short beaded *hāra*, *kuṇḍalas*, a small ear-ring near the top of the ear-lobes and a *mukuṭa* with a thick convex band (with beaded rows arrayed obliquely) and three projected ornate pieces (one each at the centre and two sides). The ribbon-end is seen on either side of the *mukuṭa.* Fastened by a beaded band with a projected ornate central piece, the locks of hair are neatly gathered in the form of a conical *jaṭā-mukuṭa*, allowing some locks to fall on the shoulders and by the sides of the face.

Behind the head of the Bodhisattva is a raised plain oval halo. Near the edge of the two sides of the back-slab with curved top corners and below the flying bejewelled garland-bearing *vidyādharas* with socked legs and conical caps is a row of tongues of flames. Below the *vidyādhara* on the dexter is the Buddhist creed in six lines in characters of the ninth century A.D.

From the two long stalks (the upper part of one culminating in a lotus against the right palm of the Bodhisattva and the other held by two of the fingers of his left palm) have issued smaller stalks ending mostly in buds and a double-petalled lotus supporting a bejewelled two-armed goddess, seated with one knee raised and the other leg placed on the lotus-seat. With one forearm resting on the raised knee, both the goddesses, like Ākāśagarbha, hold the stalk of an *utpala* supporting a *maṇi.* Behind both of them is a raised background or a halo.

Made of khondalite, the image (Accession no. 6953/A 24135 of the Indian Museum, Calcutta) of Vajrapāṇi (Pl. 26.9), which was collected by Ramaprasad Chanda from Kendrapara,[31] is 203 cm. high and 94 cm. wide. The top part of the back-slab is broken off, while the right forearm of the Bodhisattva is now damaged.

Draped in a transparent *antarīya* (with a part in folds between the two legs) fastened by a roundish girdle with a central piece in the form of an elongated flower flanked on either side perhaps by a leonine head, Vajrapāṇi is adorned with anklets of beads strung together with bell-shaped pendants, heavy *valayas* (one round his right wrist now broken off), ornate armlets with a band, having rows (three round his right arm and two round his left arm) of beads clasped by a central triangular piece with an exuberantly-carved floral motif, and an underlying row of *kīrtimukhas* holding pendants and wavy beaded garlands, a *ratnopavīta* of three beaded strings with an elongated floral clasp at intervals, a beaded *hāra*, a plain necklace with an elaborate central piece having a floral motif flanked by a *makara*-head on either side, beaded *makara-kuṇḍalas* and a richly-embellished *kirīṭa-mukuṭa* with a base-band of three beaded strings having three projecting ornate clasps; at the topmost part of the crown is a beaded band, immediately below which is a row of *kīrtimukhas* holding beaded garlands and pendants. On either side of the base of the *mukuṭa* is the end of the ribbon. Some coiled locks of hair fall on the shoulders and above.

The broken right palm (against a broken lotus, the stalk of which is seen below) was in *varada mudrā*, while the thumb and the middle finger of the slightly-raised left palm hold artistically the long stalk of an *utpala* supporting a *vajra* (thunderbolt) placed horizontally. From this stalk have issued two shoots (one near the top and the other below the left forearm), both ending in a bud.

Vajrapāṇi is standing with a graceful *ābhaṅga* on a double-petalled lotus; between the broad petals are three small petals. From the stem of the double-petalled lotus have issued two thick stems (one each on either side); from the foliated part and scroll of the stem on either side have risen the stalk of the *utpala*, the stalk of the broken lotus behind the right palm of the Bodhisattva and the stalk of a double-petalled lotus supporting a *devī* on either flank. On either side of the stalk of the lotuses supporting the *devīs* is a small stalk ending in a bud; by the side of one of the small stalks is a still smaller stalk culminating in a leaf.

Both the *devīs* with a raised background (with a semicircular top) or a halo behind them are seated, with one knee raised and the other leg spread on the top of the double-petalled lotus. Dressed in a *śāṭī* they are adorned with *valayas*, armlets, a beaded *hāra*, *kuṇḍalas* and a short beaded *mukuṭa* with a projected triangular half-flower in the case of the one on the dexter. The hair is arrayed in a neatly-done bun-shaped coiffure on the top of their head. With one forearm resting on the knee, they have placed their other palm on the seat of the double-petalled lotus. From the left elbow of the *devī* on the dexter has risen up the stalk of an *utpala*, while from the gap of the thumb and forefinger of the left palm (placed on the seat) of the other has reared up the stalk of another *utpala*.

Around the head and shoulders of the Bodhisattva is a plain oval halo (top part broken off). The edges of the two sides of the back-slab above the *devīs* have a row of tongues of flames, closely arrayed.

This khondalite two-armed image of Sarvanivaraṇa-Vishkambhin (Pl. 26.10) is on display against the wall of the south ground-floor verandah of the Indian Museum (Accession no. 6954/A 24134). But for his broken left forearm and the partially broken thumb of his right palm, the image, 211 cm. high and 99 cm. wide, is in a good state of preservation. Ramaprasad Chanda, who had acquired it from Kendrapara, identified the image with Padmapāṇi Avalokiteśvara and stated that 'there is a goad on the lotus which was held in the left hand now broken.'[32] The image has been identified by N.K. Sahu with 'Sthira Chakra Mañjuśrī', as he took the attribute on the flower for a sword.[33]

With his right palm in *varada mudrā*, resting against a lotus (from the stalk of which has sprung up a stalked leaf), Sarvanivaraṇa-Vishkambhin holds with his slightly-raised left palm (broken) the long stalk of an *utpala* supporting the straight pole of a banner. From the *utpala*-stalk have issued two short shoots, one ending in a bud and the other in a leaf.

With a broad face, somewhat prominent chin, half-closed eyes, benign contemplative facial expression and *trivali* round the neck, the Bodhisattva is standing with a graceful *ābhaṅga* on a *viśva-padma* with a small petal between the large petals in both the rows. He is clothed in a long diaphanous *antarīya* held by a cable-shaped waist-band; after the knot (covered by the central part of the girdle), the two ends of the waist-band fall on his right thigh and the loop on the left thigh. A portion of the *antarīya* is dangling between the legs in ornate wavy folds. The Bodhisattva is elegantly bejewelled in anklets with a row of bell-shaped pendants, a highly-ornate girdle (relieved with a row of diamond-shaped flowers, the resulting triangular spaces filled in with a pair of half-flowers, one upwards and the other downwards with a common roundel in the centre) with an exuberantly-carved floral motif (flanked by a *makara*-head at either end) as the central piece, thick ornate *valayas* (the one round his right wrist available) with a beaded row and a damaged central clasp, elaborate armlets with three beaded rows on a band (having on his right arm a row of obliquely-arrayed pendants below), clasped by a highly-ornate triangular projection (with coiled leaves or shoots by the sides of the central motif with a flower on his left armlet and a leonine head on his right armlet at the base above which is a *stūpa*-shaped motif on his right armlet and a vertical row of petal-shaped motifs on the left armlet) rising up, a *ratnopavīta* of three beaded strings with a squarish or oblong flower-shaped clasp at intervals and a gadrooned member, a short beaded *hāra*, a broad necklace (carved in the fashion of the girdle, also with a flower flanked by a *makara*-head on the central piece), beaded *kuṇḍalas* with a leonine figure holding a beaded string (hanging down) and a *mukuṭa* with a beaded band with three ornate triangular projections (similar to the triangular projection of the armlets). On either side of the *mukuṭa* is the projected end of the ribbon. Tied by a beaded string with an ornate triangular central projection, the hair is arrayed in a high *jaṭā-mukuṭa*, while a few coiled locks are falling on the shoulders and above.

Around the head and shoulders of the Bodhisattva is a plain ovalish halo with an inscription on it (above the left shoulder of the Bodhisattva). The inscription is practically illegible. Possibly it records the Buddhist creed.

At the two top corners of the oblong back-slab is a *vidyādhara*, holding a garland and rushing through the clouds towards the Bodhisattva. Both, with socked legs and a conical cap, wear *valayas*, a necklace and ear-ornaments. The edge of the two sides, below the *vidyādharas* and above the *devīs*, is relieved with a vertical row of tongues of flames.

Near the legs of the Bodhisattva is a *devī*, seated on a double-petalled lotus with one knee raised and the other leg lying on the lotus. Both of them wear a *śāṭī*, *valayas*, a necklace (defaced) and *kuṇḍalas* (defaced). The hair is arrayed in a bun on one side of the head. With one forearm of both placed relaxedly on the raised knee, the palm of the other hand rests on the top of the double-petalled lotus. This particular palm touches the base of the stalk of a defaced flower (the flower in the case of the one on the dexter might be an *utpala*) which rises up. Behind both of them is a raised background or a halo. The stalk of the double-petalled lotus rises from a stem, above which is a scroll, which slightly curves towards the plain space below the main *viśva-padma* (which has no stem) below the feet of the Bodhisattva. From the scroll (from which rises the stalk of the double-petalled lotus below the *devī*) on dexter have sprung up three smaller stalks, two ending in buds and one in a leaf, while from the scroll (underneath the stalk of the double-petalled lotus below the other *devī*) rear up only two small stalks, both ending in a bud. In some of the images of this category the stems join the stalk or stem of the main double-petalled lotus supporting the feet of the Bodhisattva. In this image there is no stalk or stem of the main lotus (which appears as a *viśva-padma*), the space below being plain.

Near the base on the dexter, a little below the *devī*, is a kneeling male (with bun-shaped coiffure on the top of the head) with folded palms. Behind him is a raised background. Possibly, he represents a donor.

II

The sculptures of five Bodhisattvas of the second group which are now inside the Sculpture-shed were collected from the immediate precincts of the Vāsulī Ṭhākurāṇī temple (Pl. 26.11), standing near the base of the Laṇḍā hill. The earliest notice of the remains of this locality is by Babu Chandrasekhara Banurji who published an article in the *Journal of the Asiatic Society,* 1870.[34] He, however, did not mention the name of the temple. His observations are as follows.

'The other structure, which stands on the pass between the two peaks, was built on precisely the same plan as the first, consisting of a porch and a cella, surmounted by a small pyramidal tower. This is in a better state of preservation. The roof of the porch has given way, but that of the cella still stands. It has no columns, and is formed of solid walls with niches in the interior for the figures of Buddha or "Ananta Purusottama", as the people on the spot call them. The figures are all erect, about five feet in height, holding in the left hand a lotus with a long stem, cut in high relief. The other hand is mutilated; so is the nose. The eyes have all a meek expression, and the curled hair is tied with a fillet round the middle of the head. The ears, breast, arms, and wrist have ornaments similar to those of the figures in the Bhubanesvar and other old temples of Orissa; the style of their execution point clearly to the same age and the same state of the art. There are inscriptions on the stone behind the shoulders, and in one instance near the feet. I found it difficult either to decipher or to copy them, but I thought the style of writing to be the same as I found in another part of the hill and which will be noticed below. In front of this temple, there is a brick pillar. It is round, but encircled at places by raised rings, and has also small niches, and projecting bricks intended for ascension.'

Five years later, John Beams after his visit to this hill, published an article in the same *Journal*.[35] He also illustrated his writing about the Bāsulī Ṭhākurāṇī temple with two sketches (Plates V and VI of the *Journal*). His description is reproduced below.

'The antiquities noticed by the Bábu (i. e. Chandrasekhara Banurji) on the Nalti hill are ruined temples too much dilapidated to yield any interesting results, with the exception of the temple mentioned at the bottom of page 159. I made a sketch of this (plate V). The five figures of Buddha stand in niches on the outer side of the walls of the cell, one of them is visible on the right hand of the sketch. They are executed in bold relief on large slabs of garnetic gneiss, but the inscriptions are not visible being concealed by the walls. The temple itself is now dedicated to Básuli Thákuráni who is represented by a rudely shaped clay model of a human face, covered with red paint and draped in coarse dhotis. The images of Buddha are all exactly alike and are fine pieces of sculpture. I give a sketch of one of them (plate VI). I had no time to explore the other recesses of this hill but hope to do so on a future occasion.'

According to Chandrasekhara Banurji the niches containing the images are in the interior walls; whether these walls are of the sanctum cella or porch are not mentioned. John Beams has noted that the niches pertain to the outer walls of the cell, which is supported by his sketch (Pl. V of the *Journal*) as well. This cell' apparently refers to the porch, as its roof (which 'has given way' according to Chandrasekhara Banurji) is absent in the sketch. The sanctum cella with its 'small pyramidal tower' is not depicted in the sketch which has, however, shown on the right side a niche (appears to be provided in a built-up projection of the porch) containing the image of Avalokiteśvara shown by Beams in a sketch (Pl. VI of the *Journal*). In the sketch of the structure is visible the round pillar mentioned by Chandrasekhara Banurji. As per the report of L.S.S. O'Malley, the niches in the interior contained five images of Bodhisattvas, one of which still stood, the other four lying on the ground; the figures, about 5 ft. high, hold 'in the left hand a lotus with a long stem.'[36]

Whether the porch (as seen in the sketch of John Beams) was as old as the period of the images and the images were inserted in the original niches meant for them cannot be determined. It is likely that the porch was not as old as the time of the images. In any case, the porch, if not the sanctum cella itself, has been rebuilt, on the ruins of the older one, on a much smaller scale at a later date, as seen on Pl. 26.11 (the photograph of which was taken in 1953) which shows only the present porch (the sanctum proper being behind the porch) and three of the five standing images of Bodhisattvas. Another photograph (Pl. 26.12), also taken in 1953, furnishes the view of other two Bodhisattvas. In place of the 'rudely shaped clay model of a human face' representing Vāsulī Ṭhākurāṇī is now a fairly-high old stone standing image of Tārā holding with her left hand the stalk of an *utpala*, the right palm showing the *vara-mudrā*.

Banurji and Beams identified the images as those of Buddha. According to Chandrasekhara Banurji, all of them wear ornaments, have their 'curled hair tied with a fillet round the middle of the head' and hold with their 'left hand a lotus with a long stem'. This description proves that the images represent Bodhisattvas which is again substantiated by the sketch of one (on Pl. VI of the *Journal*) of them, illustrated by Beams; this one represents Avalokiteśvara. O'Malley identified the images as those of Bodhisattvas. 'The images of Buddha,' according to Beams, 'are all exactly alike and are fine pieces of sculpture.' Beams specified the number of the images of this allied group as five.

At the time of the shifting of the images to the Sculpture-shed, five large standing images of Bodhisattvas, apart from a few smaller Buddhist images, were found in the erect position—two abutting the temple and three adjoining the temple; out of the three two (Kshitigarbha and Mañjuśrī) abut a thatched hut. These five images are described below.

These images represent Kshitigarbha, Mañjuśrī, Avalokiteśvara, Maitreya and Sarvanivaraṇa-Vishkambhin. Made of khondalite, all the five images are two-armed. These appear to be somewhat earlier than the first group and are assignable to the late eighth or the beginning of the ninth century A.D. The composition of the sculptures is simpler than that of the first group except in the case of the image of Sarvanivaraṇa-Vishkambhin where the two *devīs*, each on a double-petalled lotus with a long stalk going below the lotus-stand of the Bodhisattva and two *vidyādharas* appear—this composition appearing like a prelude to that of the first and third groups. The oblong pedestals of the remaining four are relieved with the motif of the *viśva-padma.*

The nose of the image (No. 20 of Sculpture-shed) of Kshitigarbha is broken and rubbed off. The image (Pl. 26.13) is 188 cm. high, 82 cm. wide and 44 cm. thick at the base. The image was once coated with lime-plaster, traces of which linger at places.

Standing with an inconspicuous flexion on a *viśva-padma*, the Bodhisattva with half-closed eyes and *trivali* round the neck, shows *varada mudrā* against an oval projection and holds with the thumb and index-finger of his left palm (touching the thigh) the base-part of a stalk with a foliated top, from which have reared up three stalks (presumably branches of the *kalpadruma*), each ending in a globular object, the central one inconspicuously pointed at the top. Tied by a beaded string, the major part of the hair is neatly gathered on the top of the head, while some coiled locks fall on the shoulders and by the sides of the neck and head. Around his head is a plain oval halo.

Clothed in a diaphanous *antarīya* (with a flap turned over its top edge and wavy folds in vertical succession between the legs), held by a girdle of three strings fastened together with a clasp decorated with two flowers (placed side by side), Kshitigarbha is decked with a *ratnopavīta* of three beaded strings with two floral fasteners (this *upavīta* passing over his right forearm rises up towards his back), a ring round his little fingers, thick *valayas* (one round his each wrist) decorated with flowers (some being squarish), armlets with a beaded band having a central piece in the form of a squarish pericarp with a petal on either side and an overlying and an underlying half-flower on the top and the bottom, a necklace with three bands clasped at the centre by an elaborate pattern with a flower in the centre, a beaded *hāra*, damaged *kuṇḍalas*, short ear-rings near the top of the lobes and a *mukuṭa* with a beaded band and three decorated pieces (one in the centre and one each at the sides) projecting upwards.

At the two top corners of the oblong back-slab was a figure (possibly of a Tathāgata), completely flaked off leaving only the raised back part. Below this raised part on the dexter is the Buddhist creed in eight lines, inscribed in characters of the late eighth or early ninth century A.D.

The image (No. 19 of Sculpture-shed) of Mañjuśrī with an oblong back-slab is about 188 cm. high, 78 cm. wide and 40 cm. thick at the base. The face is defaced. The left palm is damaged. There are traces of lime-plaster at places.

The Bodhisattva (Pl. 26.12, left) is draped in a diaphanous *antarīya* (with a part with folds in vertical succession between the legs) fastened by a rounded girdle with a floral central piece; a lap of the *antarīya* has come forward from the top edge of the *antarīya*. He is bejewelled with anklets attached to which is a row of pendants (mostly bell-shaped), a *ratnopavīta* with three beaded strings held by two fasteners (a collared gadrooned member with an overlying and underlying bell-shaped member), a ring round the little finger of his right palm, a *valaya* decorated with a row of discs (within rings), each punctuated with a four-sided member, armlets with a beaded band having a central ornate piece (a floral pattern projecting upwards in his left armlet and a squarish pericarp with a half-flower below and above in the case of his right armlet), a necklace strung with rings of an amulet (defaced, with two flying wing-like projections) having an underlying medallion, two tiger-nails and two medallions, a short beaded *hāra*, *kuṇḍalas* with the head of a lion or *makara* and a *mukuṭa* with a beaded band, a central flower and two projected members (one at each side). On either side of the band of the *mukuṭa* is the end of the ribbon. Of the *śikhaṇḍaka-kākapaksha* coiffure, the *śikhaṇḍaka* is embellished with a base-band with a row of oblongs, above which is a floral pattern. The base of the two *kākapaksha* locks is secured by a band with a row of discs within circles, each alternating with a four-sided motif, in the case of the dexter-one and a row of flowers in the case of the sinister-one. The *kākapaksha* lock is bifurcated into two in its lower part.

Mañjuśrī, with half-closed eyes and lines around the neck, is standing with a slight flexion on a *viśva-padma.* With his right palm in *vara-mudrā* against an oval-shaped projection, he holds with his slightly-raised left hand the stalk of an *utpala* supporting a book (defaced). Around his head is a plain oval halo.

Near the left leg of the deity is the fierce-looking dwarfish three-eyed Yamāntaka or Yamāri, with large bulging eyes and fangs displayed, wearing a short cloth held by a beaded belt, *valayas* (one around each wrist), a beaded *hāra* and *kuṇḍalas.* The hair rises upwards. Holding with his right hand a *daṇḍa* capped by a skull and with his left the string of a noose he is standing; the foot of his bent left leg is on a moving buffalo.

A part of the back-slab near the right leg of the Bodhisattva is inscribed with the Buddhist creed in characters of about the beginning of the ninth century A.D.

But for the damaged nose, the image[37] (No. 13 of Sculpture-shed) of Avalokiteśvara (Pl. 26.12, right) is in a good state of preservation. It is about 187 cm. high, 80 cm. wide and 36 cm. thick at the base. Traces of lime-plaster linger on the image.

With half-closed eyes, serene oval face, *trivali* round the neck and a raised circular mark on the forehead, the Bodhisattva is standing with a slight flexion on a *viśva-padma.* With his right palm in *varada mudrā* against an oval projection, the Bodhisattva is holding with the bent index and middle fingers of his slightly-raised left hand the base of a stalk of a full-blown lotus. From the foliated part of the stalk has reared up a stalked bud. Around his head is a plain oval halo.

Avalokiteśvara is clad in a transparent *antarīya* (with a flap coming over the top edge of the *antarīya*) with a part with almost zig-zag folds coming down vertically between the legs. He is adorned with a *ratnopavīta* of three beaded strings fastened by two clasps (one is an oval flower, the other, damaged, appearing like a row of three flowers), a girdle of three beaded strings held by an oval-shaped clasp having a central flower with an oblong pericarp and an oval-shaped ring, a ring round his thumbs and little fingers, thick *valayas* decorated with flowers and four-sided motifs, armlets with a beaded band and two strings held by a motif with an oblong central pericarp having a petal on either side and an overlying and underlying half-flower on the top and the bottom, a necklace with four or five strings held by a central diamond-shaped beaded clasp with a row of five ringed discs and oblong and ovoid (the central one, elongated ovoid, presenting the appearance of a pericarp, has an overlying and underlying ringed disc), a short beaded *hāra*, *makara-kuṇḍalas* (the one in his right ear damaged) having at the top an oblong with a border, a tiny ear-ring near the top of the lobes and a *mukuṭa* with a beaded band and two strings (or four strings and a central beaded row) clasped by a floral composition, one each at the centre and two sides; in this composition is a four-sided pericarp with a petal in the form of a ringed disc on four sides, the top petal (ringed disc) having on three sides a coiled foliated leaf or petal, presenting the appearance of a half-flower; in the composition of the side ones, the petal is absent below the pericarp.

Tied by a beaded band, the major locks of hair are gathered on the top of the head in a neat *jaṭā-mukuṭa*, allowing some coiled locks falling on the shoulders and by the sides of the head and neck. Against the front side of the *jaṭā-mukuṭa* is Amitābha in *dhyāna-mudrā*, seated in *vajra-paryaṅkāsana* on a *viśva-padma*.

At the two top corners of the oblong back-slab is a Tathāgata seated in *vajra-paryaṅkāsana* on a *viśva-padma*. Behind both of them is a raised halo with curved top corners. The one on the sinister is Akshobhya (wearing an *antarvāsa* and an *uttarāsaṅga* which leaves his right chest, shoulder and arm bare) in *bhūmisparśa-mudrā*. The other on the dexter is Ratnasambhava in *varada mudrā*.

The back-slab, below the *viśva-padma* of Ratnasambhava, is inscribed with the Buddhist creed in characters of about the ninth century A.D.

The image (No. 12 of Sculpture-shed) of Maitreya (Pl. 26.14) is 188 cm. high, 70 cm. wide and 43 cm. thick at the base. His left forearm and the top corner (on the sinister) of the back-slab are broken off and missing. This image has been identified as Avalokiteśvara[38] by Ramaprasad Chanda and Padmapāṇi by N.K. Sahu.[39]

With half-closed eyes, graceful oval face, *trivali* round the neck and a raised circular mark on the forehead, Maitreya is standing with a slight flexion on a *viśva-padma*. With his right palm in *varada mudrā* against an oval projection, he holds with his slightly-raised left hand a stalk crowned by a bunch of *nāgakesara* flowers and leaves. Around his head is a plain elongated-oval halo.

The Bodhisattva wears a diaphanous *antarīya* (with a flap turned over the top edge of the *antarīya* and a part with folds between the legs) fastened by a girdle with three strings having a clasp with a floral pattern (with a row of five pericarps, placed side by side, having a row of small petals below and above), a thick *valaya* (with a central flower ?) round his right wrist, rings around the thumb and little finger of his right palm, armlets with a beaded band and two strings (one overlying and the other underlying) having a projected central ornate clasp with a rounded top (the clasp is decorated with a succession of an oblong pericarp, a circular flower and a motif resembling a bud or *maṇi* with a row of petals around them with the exception of the bottom side) and an underlying row of *kīrtimukhas*, from which hang down wavy beaded garlands and tiny pendants, a *ratnopavīta* of three beaded strings with two clasps (one with a flower and the other with a row of flowers), a broad necklace with four strings clasped by a diamond-shaped fastener with a beaded border containing inside a row of five tiny flowers or ringed discs and oblong (the central oblong one having an underlying and overlying flower or ringed disc), a short beaded *hāra*, *kuṇḍalas* (perhaps *makara-kuṇḍalas*), tiny ear-rings near the top of ear-lobes and a *mukuṭa* with a beaded band and two strings clasped by a central ornate projected piece (with a succession of a flower, a triple stalked bud and a roundel with petals by the sides of the upper two and petals above the roundel) and two ornate pieces (a half flower above an oblong pericarp) by the sides. Tied by a beaded band, the locks of hair are arrayed on the top of the head in the form of a neat *jaṭā-mukuṭa*, allowing some coiled locks to fall on the shoulders and by the sides of the head and neck. Against the front side of the *jaṭā-mukuṭa* is a *stūpa* surrounded by petals, the composition being triangular.

At the available dexter-corner of the oblong back-slab is Akshobhya in *bhūmisparśa-mudrā* seated in *vajra-paryaṅkāsana* on a *viśva-padma*. He is robed in an *antarvāsa* and an *uttarāsaṅga* which leaves his right chest, shoulder and arm uncovered. Behind him is a raised halo with curved top corners.

The back-slab, below the *viśva-padma* (of Akshobhya) along with an adjoining part of the halo is inscribed with the Buddhist creed in five lines in characters of the early ninth century A.D. There are traces of lime-plaster.

The image (No. 18 of Sculpture-shed) of Sarvanivaraṇa-Vishkambhin, is nearly 200 cm. high and 46 cm. thick at the base, the width being 76 cm. at the base. The right palm of the Bodhisattva (Pl. 26.15) is damaged, while the left forearm is broken off. The composition of the image, with two companion goddesses, long stalks rising from the bottom of the circular *viśva-padma* stand of the Bodhisattva and garland-bearing *vidyādharas*, is different from that of the other four images found in the compound of the Vāsulī temple. The face also appears to be broader than that of the four images. The image is again higher than the four. If it formed a group with the four, it is likely that the sculptor was on his way towards elaboration which progressed through the images found at Hātikhāl and shortly produced the beautiful well-finished images found near the *maṭha*.

Draped in a transparent *antarīya* (with a lap turned over the top edge of the *antarīya*), the Bodhisattva is adorned with a *ratnopavīta* of three beaded strings with a damaged clasp, a girdle with three strings with a central diamond-shaped clasp having an eight-petalled flower surrounded by some more petals (a band, mostly triple-stringed, passing over the girdle falls in front with a wavy loop and two straight lower parts ending in a bell-shaped pendant), armlets with a beaded band and a central piece decorated with a flower having a squarish pericarp, a necklace with strings clasped by a central piece having a composite floral pattern, a beaded *hāra*, *makara-kuṇḍalas*, a short ear-ring with a flower near the top of the lobes and a *mukuṭa* with a beaded line, two thin strings and a band with closely-arrayed oblique lines, held by a defaced clasp (with floral pattern ?) in the centre, and having a triangular ornate motif (with a succession of three squares or pericarps and a conical motif, each of them having a border, all enclosed by a running row of petals, except on the bottom side) by the sides. Projecting from either side of the *mukuṭa* is the end of the ribbon. Tied by a beaded band, the major part of the hair is arrayed in a conical *jaṭā-mukuṭa*; the beaded band has an elongated piece (projecting upwards) with a semicircular top, having a succession of ringed discs surrounded on three sides by a continuous row of petals. A few coiled locks of hair fall on the shoulders and by the side of the neck.

Standing with a slight flexion on a *viśva-padma* Sarvanivaraṇa-Vishkambhin shows *varada mudrā* with his damaged right palm placed against a broken lotus (stalked) and holds with his slightly-raised left palm (broken) a long stalk ending in a lotus supporting the staff of a flag. Around the head and shoulders of the Bodhisattva is a plain elongated-oval halo.

From the foliated part of the long stalk (held by the left palm of the Bodhisattva) have sprung up stalks of four buds and a leaf. This stalk goes down and has another foliated part from which have issued three short stalks, one ending in a lotus-leaf, the second in a double-petalled lotus (supporting a goddess) and the third in a bud. Coming down further it has another foliated part, from which have issued the stalks of two buds. Going down below the *viśva-padma* (on which the Bodhisattva is standing) it merges with a second stalk (actually, there is no line of demarcation between the two stalks). From the first foliated part of the second stalk has emerged a stalked lotus-leaf, from the second scroll-like foliated part have sprung three stalks, two ending in a bud each and one ending in a double-petalled lotus (supporting a goddess) and from the third foliated part have reared up three short stalks, two ending in buds and the central one most probably a lotus (broken) against which is the right palm (in *varada mudrā*) of the Bodhisattva.

The double-petalled lotus of both the stalks supports each a goddess, seated with one knee raised and the other leg placed on the seat, the knee being slightly bent. The figure of the goddess on the sinister is mostly broken; but her left palm is seen resting on the seat and there is a stalk of an *utpala* near her right knee. The two-armed goddess on the dexter is dressed in a *śāṭī* and bedecked with *valayas* (one around each wrist), armlets, a beaded *hāra*, *kuṇḍalas* and a beaded string over the forehead. The tresses of hair are gathered in a circular manner on the right side of her head. With her right palm placed on the seat, she presumably holds with her left hand the stalk of an *utpala* which is seen behind the upper part of her left arm. There is no halo or raised background behind her.

At the two top corners of the oblong back-slab is a bejewelled garland-bearing *vidyādhara* with socked feet. Wearing a short cloth and a conical cap, both of them are rushing through the clouds(?) towards the head of the Bodhisattva.

The back-slab with a straight top is irregular, as a result of which the width varies.

Three of the images of this group, namely Samantabhadra, Ākāśagarbha and Vajrapāṇi, were not reported to have been in the Vāsulī temple at least from 1870, which raises a doubt if the images of eight Bodhisattvas originally belonged to the Vāsulī temple complex. It is likely that five of the eight images were brought from the remains of a Buddhist temple or more probably from a dilapidated monastery. Otherwise, we have to contend that these three images were shifted to another place. The possibility of the removal of the three images to places like Kendrapara and Mahanga (at least one taken by a zemindar of this place could not be located now) cannot be ruled out.

III

Our third group of images were found at Hātikhāl at a raised ground near the foot of the hill, locally called Parabhari or Parahari. This hill, close to the Laṇḍā hill, forms part of the Lalitagiri village.

During his visit to Lalitagiri in 1870 Chandrasekhara Banurji went to the peak of this hill and 'found the ruins of a round building. Three circular layers of stone are alone to be seen now, which formed the base of the temple. In the middle of this platform, there are traces of three other layers, and a number of cut stones lie scattered round it, among which I found a slab, bearing an inscription of ten lines.'[40] The ruined structure which is visible even now on the top of this hill appears to be a *stūpa.* Banurji further notes as below. 'About five hundred feet below the above point on the western slope of the hill, there is a place called the "Háthi-khál" or the elephant hole or cave. I have no doubt there was formerly a large cave cut in the rock at this place, the roof of which must have come down, the hill itself having been disturbed by an earthquake whence the tradition at this place of its being cursed. I saw six figures of Buddha of the same size and height, standing in a line, portions of their legs up to the knee having gone down or been filled up by the fall of the cave, in front of which they must originally have stood. These figures are four feet in height (from knee to head) and cut in slabs of sandstone, two feet three inches in breadth. They appeared to be very old, and enveloped in milk-white moss that had very nearly filled up the lines of an inscription which, after some difficulty, I succeeded in recovering from one of the slabs. The inscription contains the Buddhist creed *Ye dharmál' hetu*, etc., in the Kutila character.' Most of the images, which stood in a line, were those of Bodhisattvas.

A brief notice of Hātikhāl is left by L.S.S. O'Malley.[41] 'On the northern side of the eastern peak is a level plot of ground, 220 feet by 340 feet, said to have been the site of the royal stable, *pilkhānā* and officers' quarters in the time of Rājā Vasukalpa; at the end nearest the hill there are nine statues of stone, almost all of them images of Buddha and Bodhisatwas.'

The brief notice of Ramaprasad Chanda is as follows. 'On the northern slope of the Parahari hill, near *mauza* Kesraipur, there is a long shelf cut out of the hill side and known as the Hātikhāl. On this shelf we find the remains of what was once a gallery of life-size Mahāyāna Buddhist images. Six of the images still stand facing north partially buried in débris and parts of two others are found lying.'

A view of the row of images, long before they were shifted to the Sculpture-shed at Lalitagiri, may be seen in Pl. 26.16, the photograph having been taken possibly at the time of the tour of Ramaprasad Chanda.[42] In this photograph is seen a row of five standing images (lower part buried) of Bodhisattvas and headless image of Buddha and a fallen image of a Bodhisattva wearing a high crown. Seen from left (dexter) to right, the images are of Kshitigarbha, Samantabhandra, Maitreya (?), Buddha, Vajrapāṇi (fallen on the ground), Mañjuśrī and Ākāśagarbha. At the time of the shifting of the scattered images to the Sculpture-shed at Lalitagiri in 1960-61, I asked the staff of the Eastern Circle of the Archaeological Survey of India not to disturb the half-buried images at Hātikhāl, as I felt that the area should be excavated to find out the context of these sculptures (i.e. if they were installed in a planned manner in a structure or on hypaethral platform or if they were collected from some other location and placed in a row). I could not accomplish this work before my transfer to Bhopal, nor did I take notes. During my last visit to Lalitagiri in December, 1992 I found the sculptures of seven Bodhisattvas (including the lower part of the image of Avalokiteśvara) and the headless figure of standing Buddha in the Sculpture-shed at Lalitagiri.

The time at my disposal during my last visit did not permit me to take notes of these sculptures except one of Ākāśagarbha. Made of khondalite all the Bodhisattvas are two-armed and stand with a slight flexion. They form a homogeneous group and are datable to the ninth century A.D. This group appears to be slightly later than the second group and somewhat earlier than the first group.

I furnish below a detailed description of the image of Ākāśagarbha. In respect of the others, I merely note down their attributes and approximate heights. All the Bodhisattvas are lavishly bejewelled. At the top corners of their oblong back-slab are flying *vidyādharas*. The image of Sarvanivaraṇa-Vishkambhin is not available.

The sculpture (Nos. 47A and 47B of Sculpture-shed) of Ākāśagarbha (Pl. 26.17) is broken into two pieces, the fragment with the head along with the top part of the back-slab being numbered 47A. Together, the sculpture is about 198 cm. high. The face is badly damaged.

Clothed in an *antarīya* (with a flap coming down in front from the top edge of the *antarīya* and with a part of the cloth having a vertical succession of folds between the two legs), the Bodhisattva is standing with a slight flexion on a *viśva-padma*. With his right palm in *vara-mudrā* against a lotus, he holds with the thumb and index-finger of his left palm (resting on the head of a bejewelled slightly pot-bellied standing figure) the stalk of an *utpala* supporting a diamond-shaped *maṇi* (*chintāmaṇi* gem) on a low base of two mouldings; from near the top of this base hang down two beaded rows or strings (*ratna-mañjarī*) attached to each other. Around his head and shoulders is a plain oval halo.

He is adorned with a ring round little fingers, a girdle, bracelets (two around each wrist) with a beaded band, armlets with a *kīrtimukha* as a central piece, a *ratnopavīta* with three beaded strings held together by a clasp (in the shape of a central diamond-shaped gadroon with an overlying and underlying bell-shaped member), a necklace with a row of four strings held by a clasp (damaged), a beaded *hāra* (damaged), *kuṇḍalas* (damaged), a small ear-ring near the top of the ear-lobes and a *mukuṭa* (front portion completely damaged) with a triangular ornate piece near the sides. At either end of the *mukuṭa* is the end-part (in folds) of the ribbon. The elaborate girdle presents four strings held by a clasp having a central flower with an underlying motif (looking like a succession of two rings), from which hang down two double-stringed tassels which, passing over the four-stringed girdle, fall on the thighs and take the form of a bell (on both sides), from which hangs down a short beaded string ending in a tailed heart-shaped member (or bud). Tied by a string, the locks of hair are gathered in a conical coiffure on the top of the head, allowing a few coiled locks to fall on the shoulders and by the sides of the face and neck.

At the top corners of the oblong back-slab is a bejewelled garland-bearing *vidyādhara* with socked legs. Wearing a conical cap, they are rushing through clouds towards the head of the Bodhisattva.

On the dexter near the right leg of Ākāśagarbha is a bejewelled goddess, seated with her left knee raised and right leg, with the bent knee, extended on a double-petalled lotus with a foliated stem (going down towards the bottom of the *viśva-padma*). With damaged palms joined near the chest, she has a stalk, passing over the upper part of her left arm, of an *utpala* supporting a *maṇi* (the attribute of Ākāśagarbha) with a conical top. She wears a *śāṭī* worn with a *kachchha*. The hair is gathered and coiled against her neck and right shoulder. Behind her back side is a raised background or a halo.

On the corresponding sinister is the bejewelled slightly pot-bellied dwarfish figure standing on a raised stand. With its left palm resting on the thigh, the figure holds with the right palm a damaged *utpala* supporting a *maṇi* with a conical top.

The lavishly-bejewelled image (No. 46 of Sculpture-shed) of Samantabhadra (Pl. 26.18) is about 197 cm. high. With his right palm, against a stalked lotus, in *vara-mudrā*, the Bodhisattva holds with his left palm the long stalk of a lotus, from the centre of which rears up the hilt of a damaged sword. At the two top corners of the oblong back-slab is a bejewelled garland-bearing *vidyādhara* rushing through clouds towards the head of the Bodhisattva. There are two bejewelled goddesses with a raised background or a halo behind them near the legs of the Bodhisattva. Both of them are seated (with one knee raised and the other leg lying on the seat) on a double-petalled lotus, the stalk of which descends down to the bottom of the *viśva-padma* below the feet of Samantabhadra. With their one palm hanging from the raised knee, the other is placed on their lotus-seat. Rising above one of their elbows is the stalk of a flower supporting the hilt of a sword (balanced vertically), the attribute of Samantabhadra.

The image (No. 42 of Sculpture-shed) of Kshitigarbha (Pl. 26.19) is about 195 cm. high. While his right palm (against a stalked lotus) shows the *vara-mudrā*, the left carries a long stalk ending in three branches of a *kalpadruma*, each branch (appearing like a plain stalk) crowned by a *maṇi* (?). At the top corners of the oblong back-slab is a flying *vidyādhara* holding with two palms the two ends of a garland. The two bejewelled *devīs*, seated (with one knee slightly raised and the other leg lying on the seat) each on a stalked double-petalled lotus near the legs of the Bodhisattva, show the *añjali-mudrā* with two palms touching each other near the chest. Passing over the upper part of one of their arms is a stalk culminating in three stalks or branches (each capped by a *maṇi* ?) of a *kalpadruma*, the attribute of Kshitigarbha. Behind them is a raised background or a halo.

The height of the available part of the image (No. 45 of Sculpture-shed) of Mañjuśrī (Pl. 26.20), with *śikhaṇḍaka-kākapaksha* coiffure, is about 181 cm. With his right palm (against a stalked lotus) in *vara-mudrā*, the Bodhisattva holds with his left hand the stalk, possibly, of an *utpala* supporting a book. The left forearm along with the attribute is broken off. While the upper part of the back-slab is missing, the lower part along with the feet of the image has exfoliated. Mañjuśrī is distinguished by a *hāra* strung with the rings of a central amulet (having a wing-like projection, thin like a string, on either side) with an underlying medallion, two tiger-nails and two medallions.

The upper part (from the thigh upwards) of the image (No. 78 of Sculpture-shed) of Avalokiteśvara (Pl. 26.21) is missing. It is 73 cm. wide at the base, the available height being about 89 cm. Clothed in an *antarīya* with a part in folds between the legs, the Bodhisattva is standing with a slight flexion on a *viśva-padma* or a double-petalled lotus. By the side of his right leg is the bejewelled two-armed Tārā, seated on a double-petalled lotus with its stalk ending in a scroll immediately below the double-petalled lotus; she is opening the petals of an *utpala*. The corresponding figure by the left leg of the Bodhisattva represents the four-armed Bhṛikuṭī in *vajra-paryaṅkāsana* on a double-petalled lotus with its stalk ending in a scroll. She holds with her upper right, upper left and lower left hands a rosary, a *tridaṇḍa* and a small water-pot respectively, the lower right palm displaying *vara-mudrā*. Devoid of ornaments, she bears a *stūpa* against her *jaṭā-mukuṭa*. Behind the goddess is a raised background or a halo.

The image (Nos. 40A and 40B of Sculpture-shed) of Maitreya (Pl. 26.22) is broken into two pieces; the head along with the top part of the back-slab is numbered as 40B. Together the image is about 188 cm. high. With his right palm (broken) in *vara-mudrā*, the Bodhisattva holds with his left hand a stalk ending ultimately in a cluster of *nāgakesara* flowers. Both the bejewelled *devīs* by the sides of the lower parts of the legs of the Bodhisattva are seated with one knee raised, the other lying on a double-petalled lotus, below which is the scroll-like foliated part of the stalk going below the *viśva-padma*, on which the Bodhisattva is standing. The palms of the *devīs* are joined together in *añjali-mudrā*. There is perhaps a defaced flower-stalk behind the *devī* on the dexter.

The image (No. 41 of Sculpture-shed) of Vajrapāṇi (Pl. 26.23) with a high *kirīṭa-mukuṭa* is about 188 cm. high. Both the forearms are broken. A part of the oblong back-slab (near the right side of the head of the Bodhisattva) is broken off. From the nature of breakage of the right forearm, it appears that the right palm of the Bodhisattva was in *vara-mudrā*. The left palm (missing) holds the long stalk of an *utpala* bearing a thunderbolt, placed horizontally. Above the thunderbolt and near the top corner (on the sinister) of the back-slab is a garland-bearing *vidyādhara* flying towards the head of the Bodhisattva. Two bejewelled goddesses, with a raised background or halo behind them, are seated on double-petalled lotuses with foliated stalks emerging from the bottom of the *viśva-padma* supporting the feet of the Bodhisattva. The one on the dexter (near the right leg of the Bodhisattva) is seated cross-legged and holds with her left hand the stalk of an *utpala* bearing a thunderbolt, placed vertically. In the grip of the right palm of the other (on the sinister), seated with one knee raised, is also a thunderbolt, the attribute of Vajrapāṇi.

The upper part of the image (No. 44 of Sculpture-shed) of Buddha (Pl. 26.24) brought from Hātikhāl is missing. The lower part, from the top of the waist downwards, is 128 cm. high. Robed in an *antarvāsa* and an *uttarāsaṅga*, Buddha is standing with a slight *ābhaṅga* on a *viśva-padma*. His right palm might have been in *vara-mudrā*, the left palm holding the string-like end of the *uttarāsaṅga*. On either side of the *viśva-padma* is a male figure with a raised background (having a semicircular top) behind both. The kneeling one on the dexter, showing *añjali-mudrā* with two folded palms, represents a devotee or donor. The other, on the sinister, is seated with one knee raised, the other leg lying on the seat. With his raised right palm in *vandanā-mudrā*, he, possibly a bejewelled Bodhisattva, is holding with his left palm, resting on the seat, the stalk of a flower.

IV

Apart from these three sets of images of Bodhisattvas, there might have been another set, of which only two bejewelled khondalite images, both 148 cm. high, from

Lalitagiri are now available in the Sculpture-shed at Lalitagiri. Both of them are standing with a slight flexion on a *viśva-padma* and show *vara-mudrā* with their right palm. One (No. 21 of Sculpture-shed) which was inside a niche of one of the walls of the unfinished modern temple, has been identified with Avalokiteśvara by Ramaprasad Chanda and N.K. Sahu.[43] However, this image (Pl. 26.25) may represent Ākāśagarbha, as there appears to be a *maṇi* on a lotus, the long stalk of which is held by his left palm (resting on the thigh). By the side of his right and left legs are respectively a seated *devī* (?) with the stalk of a lotus-bud rearing up above her left shoulder and a bearded ascetic with a *yogapaṭṭa* tying the raised knees with the waist. At the two top corners of the oblong back-slab is a garland-bearing bejewelled *vidyādhara* flying towards the head of the Bodhisattva. The plain oval halo is inscribed with the Buddhist creed in characters of the eighth-ninth century A.D.

The second Bodhisattva (No. 22 of Sculpture-shed; Pl. 26.26) with his right palm in *vara-mudrā*, holds with his left palm (resting on his left thigh) the long stalk of an *utpala* bearing a crescent-shaped object which is not the usual form of a book. However, the image cannot be identified with Chandraprabha. On account of the *śikhaṇḍaka-kākapaksha* coiffure and a *hāra* strung with the rings of a cylindrical amulet, tiger-nail and medallions, the image has to be identified with Mañjuśrī. By the side of the right leg of the Bodhisattva is a seated ascetic with a *yogapaṭṭa* tying his raised knees with the waist, while on the side of his left leg is a bejewelled seated *devī* (?) holding with her left palm (resting on her seat—a double-petalled lotus) the stalk of an *utpala.* Close to the latter is the Buddhist creed inscribed on the back-slab. If the first image represents Avalokiteśvara instead of Ākāśagarbha, then these two Bodhisattvas might have flanked an image of Buddha.

V

As for the figures of Bodhisattvas represented on a single sculpture, Lalitagiri has one (No. 27 of Sculpture-shed). As the upper part of this khondalite sculpture is broken off, it could not be determined if all the eight Bodhisattvas figured on this sculpture (Pl. 26.27) or not. The sculpture is 77 cm. wide and 30 cm. thick at the base, the height of the available part being 74·5 cm. The central figure, a large one (the upper part from the chest upwards missing), represents Buddha in *bhūmisparśa-mudrā,* seated in *vajra-paryaṅkāsana* on a double-petalled lotus with an exquisitely-carved foliated stem having a scroll.

On either flank of Buddha is a small bejewelled two-armed figure of a Bodhisattva in *mahārājalīlā* on a double-petalled lotus with a foliated stem having a scroll. The Bodhisattva by the side of the right arm of Buddha is possibly Avalokiteśvara (head damaged) with his right palm in *vara-mudrā*, the left palm holding the stalk of a damaged flower (possibly a lotus). The figure by the side of the left arm of Buddha represents Mañjuśrī (head broken) wearing a short *hāra* strung with the rings of a cylindrical amulet and medallions. With his right arm raised (possibly in *vandanā-mudrā*), he holds with his left palm (placed on the lotus-seat) the stalk of a flower (damaged). It is not unlikely that the figures of two more Bodhisattvas existed above each of these two Bodhisattvas.

Below the lotus-seat of Buddha and on either side of the foliated stem of the lotus is a bejewelled two-armed Bodhisattva seated, each on a lotus with a single row of rising petals, with one knee raised and the other leg extended over the foot of the leg with the raised knee. With his right palm placed on his lotus-seat, the one on the dexter holds with his left palm a vertical stalk capped by a bud or bud-shaped *maṇi* (the attribute of Ākāśagarbha). The right palm of the one on the sinister is *vandanābhinayī*, the left palm, resting on the seat, holds the stalk of a damaged *utpala* (?) supporting a damaged object. If this object is a *ratna*, the figure may represent Sarvanivaraṇa-Vishkambhin.

Udayagiri

At least two sculptures of Buddha in the company of eight Bodhisattvas were found at Udayagiri, one (a broken sculpture) discovered on the surface and the other (a complete one) unearthed during the excavation of a monastery by the Excavation Branch IV (located at Bhubaneswar) of the Archaeological Survey of India in the financial year 1986-87.[44] The excavation brought to light some terracotta sealings (bearing impressions of at least three seals) of the monastic establishment that flourished here in the past. The legend on the sealings reads *Śrī-Mādhavapura-mahāvihārīy-ārya-bhikshu-saṁghasya* in characters of about the tenth or eleventh century A.D. or *Śrī-Mādhavapura-mahāvihārīy-ārya-saṁghasya* in characters of about the tenth century A.D. Thus, the Buddhist monastic establishment of this place was known as Mādhavapura-mahāvihāra. The excavation of this monastery yielded a good number of Buddhist images, mostly in the shrine-chamber and in the space in front of the door-frame of this chamber.

The khondalite sculpture (Pl. 26.28)[45] of Buddha with eight Bodhisattvas, found in the course of the excavation, is now seen inside the shrine-chamber (containing the presiding image of Buddha in *bhūmisparśa-mudrā*) facing the east and the main entrance of the monastery. It is 120 cm. high and 78 cm. wide near the base. Robed in an *antarvāsa*, with a folded part spread on the pericarp of a lotus with three rows of petals, and a diaphanous *uttarāsaṅga* covering both shoulders, Buddha is seated in *vajra-paryaṅkāsana* in *dharmachakrapravartana-mudrā* (with the top of the middle finger of his right palm resting on the top of the middle finger of his left palm).

Behind his head and shoulders is a plain oval halo, immediately above which is an umbrella. Below the lotus-seat of Buddha and in the central part is a twelve-spoked wheel on a moulded stand flanked by a recumbent deer on either side (the insignia of Mṛigadāva or Mṛigadāya the present Sarnath, U.P.). By the dexter-side of the wheel is a shaven-headed monk (possibly the donor of the sculpture) with palms joined in adoration and on the sinister a spouted water-pot supporting a horizontally-sliced conch-shell (*śaṅkha*) with a depression for holding the perfume (*gandha*) or paste of the sandal-wood.

Buddha is accompanied by eight two-armed bejewelled Bodhisattvas—three each on either side and one each below the lotus-seat of Buddha at either end. All the Bodhisattvas are seated in almost *mahārājalīlā* posture on a lotus—the six, by the sides of Buddha, on *viśva-padmas* and two, below the lotus-seat of Buddha, on a lotus with rising petals. Draped in an *antarīya*, they wear an *upavīta*, plain *valayas* (one round each wrist), armlets (either a single band or two strings, usually with a central piece), a short *hāra* (beaded in most cases), beaded *kuṇḍalas* (in the case of seven Bodhisattvas) or ear-studs (in the case of Mañjuśrī) and a short *mukuṭa*. The six by the sides of Buddha have each a plain halo.

Starting from the dexter-side of Buddha by the side of his right thigh is Avalokiteśvara (with *jaṭā-mukuṭa* or bun-shaped coiffure tied by a string) holding with his right palm (near the chest) the gadrooned staff of a *chāmara*, the left palm, resting on the knee, bearing the long stalk of a double-petalled lotus. Against the central part of the cable-shaped *mukuṭa* and base of the *jaṭā-mukuṭa* is the defaced figure of a seated transcendent Tathāgata.

The second Bodhisattva, above Avalokiteśvara, is Maitreya with *jaṭā-mukuṭa* or bun-shaped coiffure held by a string. Against the cable-shaped *mukuṭa* and coiffure is a prominent *stūpa*. Holding a branch ending in *nāgakesara* flowers and leaves with his left palm (resting on the knee), Maitreya shows with his right palm (against the chest) a *mudrā*, somewhat like *vyākhyāna* but four of the fingers slightly bent.

The third is Samantabhadra with *jaṭā-mukuṭa* or bun-shaped coiffure fastened by a string. With his right palm in *vara-mudrā*, he holds with the slightly-raised left palm the stalk of a defaced flower (*utpala* ?) supporting a vertical sword standing on its hilt.

The fourth Bodhisattva (the top one on the sinister of Buddha), with *jaṭā-mukuṭa* or bun-shaped coiffure held by a string, is Kshitigarbha. With his right palm possibly with a *maṇi* (a tiny globule) against the chest, he holds with his left palm a stalk ending in three globular objects, presumably the *kalpadruma*.

The fifth is Vajrapāṇi with three rows of coiled locks of hair tied by a string and gathered cylindrically on the head. The *mukuṭa* is in the form of a beaded band with a central ornate projection. With his right palm (near the chest) bearing a vertically-balanced thunderbolt, he holds with his left hand the long stalk of an *utpala*.

The sixth is Mañjuśrī with three locks of hair in *śikhaṇḍaka-kākapaksha* coiffure, a *mukuṭa* in the form of a beaded band, circular ear-studs and a beaded *hāra* strung with the rings of a cylindrical amulet, two tiger-nails, two bells and two medallions. With the gadrooned staff of a *chāmara* held with his raised right palm, he carries with his left palm, placed on his left leg, the stalk of an *utpala* supporting a book.

The seventh Bodhisattva, on the sinister-corner below the lotus-seat of Buddha, is possibly Ākāśagarbha with *jaṭā-mukuṭa* or bun-shaped coiffure tied by a string and a *mukuṭa* with a beaded band and an ornate central projection. With his right palm (inner side visible) raised upwards in *vandanā-mudrā*, he holds with his left palm (placed on the pericarp of the lotus-seat) the stalk of an *utpala* supporting an abraded globular object, possibly a *maṇi*.

The back side of the eighth is turned towards us; consequently we can see that the *antarīya* is worn with *kachchha* and that there is a knot of the string of the *hāra*. The face, turning towards Buddha, is, however, visible. Wearing a *mukuṭa* with a beaded band having a central ornate projection and *jaṭā-mukuṭa* or bun-shaped coiffure held by a string, the Bodhisattva touches with his right palm (outer side visible) a petal of the lowest row of the petals of the lotus-seat of Buddha. His left palm, resting on his lotus-seat, holds the stalk of a flower (?) bearing a defaced globular object, perhaps a *maṇi*.

The identification of the seventh and eighth Bodhisattvas poses a problem. Both hold with their left palm the stalk of a flower supporting a globular object which appears to be a *maṇi*. One of the two Bodhisattvas is perhaps Ākāśagarbha bearing the *chintāmaṇi* gem. The other represents most probably Sarvanivaraṇa-Vishkambhin, as according to *Sādhana* no. 18 (*Lokanātha-sādhana*) of the *Sādhanamālā*, which describes the *maṇḍala* of eight Bodhisattvas around Lokanātha, Vishkambhin holds an excellent jewel (*ratnottama*).[46] The flag (*dhvaja*), an attribute of Vishkambhī, is not found in his hand not only at Udayagiri but also at Ratnagiri.

The pedestal of the sculpture is inscribed with the *siddham* symbol and the Buddhist creed in characters of the early ninth century A.D. or slightly earlier.

The second khondalite sculpture (Pl. 26.29), of about the ninth-tenth century A.D., is lying on the lowest part of the hill. It is broken into fragments, mutilated and partially defaced. The head of the central figure of Buddha is missing. The major portion of the right arm along with the palm is broken off. This palm might have been in *bhūmisparśa-mudrā* or *varada mudrā*. The available left palm with a wheel-mark rests on the lap. Buddha is seated in *vajra-paryaṅkāsana* on a double-petalled lotus with a foliated stem, from which have reared up two stalks, each culminating in a bud. Behind him is a plain elongated halo with a semicircular top.

Six of the eight two-armed Bodhisattvas are by the sides of Buddha—a vertical succession of three on either flank. All of them are bejewelled and seated roughly in *mahārājalīlā*, each on a *viśva-padma*; behind their heads and shoulders is a plain halo. The remaining two Bodhisattvas are depicted below the lotus-seat of Buddha, one each at either end. Thus, the composition is like that of the preceding sculpture. On the dexter of the foliated stem of the lotus-seat of Buddha is a half-kneeling person with a bun-shaped coiffure at the back of the head, holding with two palms the handle of a flaming incense-burner, while on the sinister is a tripod supporting a conch-shell for storing *gandha*, paste of the sandal-wood.

Starting from the top on the dexter and proceeding downwards we first see Samantabhadra with his right palm in *vara-mudrā* (?), the left arm damaged. Above his left shoulder is a sword. Next is Maitreya with his right palm near the chest, the left palm holding a blossoming *nāgakesara* branch. The third is Avalokiteśvara with the stalk of a lotus in his left hand, the right palm being in *vara-mudrā*. The corresponding figure on the sinister, with the *śikhaṇḍaka-kākapaksha* coiffure and a *hāra* having an amulet and other defaced objects, represents Mañjuśrī. The attributes in the hands of the two Bodhisattvas above Mañjuśrī are not clear in the photograph available with me. One of the two appears to be Vajrapāṇi and the other is perhaps Ākāśagarbha.

Below the lotus-seat of Buddha is the seventh Bodhisattva (Sarvanivaraṇa-Vishkambhin?) with his right palm (placed on the plain base of the sculpture) touching a thick stem surmounted by an ovalish object (bud or *maṇi*), some fingers of his left palm touching the bottom of the lotus-seat of Buddha. The eighth Bodhisattva, with his raised right palm in *vandanā-mudrā*, bears with his left palm (resting on the base) a stalk, from the top of which rise three smaller stalks, capped each by a roundel (one broken), representing perhaps the *kalpadruma*; this Bodhisattva possibly represents Kshitigarbha. Seated in *mahārājalīlā*, these two bejewelled Bodhisattvas, with bun-shaped coiffure at the back of the head, do not have any halo.

The popularity of these Bodhisattvas at Udayagiri is further attested by the images of four transcendent Tathāgatas fixed to the four cardinal sides of an imposing *stūpa* near the excavated monastery. Each of these four images of Tathāgatas is flanked on either side by a standing figure of a Bodhisattva—eight in all. Among these eight Bodhisattvas, Avalokiteśvara, Vajrapāṇi, Maitreya, Samantabhadra, Ākāśagarbha, Mañjuśrī and Kshitigarbha can be identified. The eighth is possibly Sarva-nivaraṇa-Vishkambhin holding with his left palm the long stalk of a lotus crowned by a semicircular object (*maṇi* ?).

Ratnagiri

Ratnagiri yielded during excavations three khondalite sculptures with eight two-armed Boddhisattvas, in two vertical rows of four each, flanking the central figure of the main deity. One of them was found inside a niche of the western wall of the later antechamber in front of the shrine of Monastery 1.[47] The sculpture (Pl. 26.30) of about the eighth century A.D., 80·6 cm. high, presents a fine image of Akshobhya or Buddha, seated in *vajra-paryaṅkāsana* on a double-petalled lotus in *bhūmisparśa-mudrā*. Seated roughly in the *mahārājalīlā* posture (with one knee raised and the other leg extended beyond the foot of the leg with the raised knee), each on a *viśva-padma*, all the eight Bodhisattvas are adorned with ornaments like *valayas* (one round each wrist), a girdle, an *upavīta*, armlets, a *hāra*, ear-ornaments (either ear-rings or ear-studs) and a short crown at the base of the *jaṭā-mukuṭa* presenting the appearance of the bun-shaped coiffure on the top of the heads (*śikhaṇḍaka-kākapaksha* coiffure in the case of Mañjuśrī). All the four Bodhisattvas of the row on the dexter have oval haloes behind their heads and shoulders and their right palms are placed on their seats.

Beginning with the topmost Bodhisattva of the row on the dexter and proceeding downwards are: (i) Samantabhadra holding with his raised left hand a short stalk ending in three round objects (possibly a bouquet of jewels)[48] and with the right palm the stalk (which issues from the gap between the thumb and the forefinger) of an *utpala* (?) on which is the hilt of a sword (aslant); (ii) Maitreya with a short branch of the *nāgakesara* flowers in his raised left hand; (iii) Avalokiteśvara with the stalk of a lotus issuing from the gap between the thumb and the index-finger of his right palm, the left palm resting on his raised knee; and (iv) Kshitigarbha holding with his left palm a branch ending in a bunch of three round objects, possibly jewels (one, larger and somewhat conical, above and two below), representing, presumably, a *kalpadruma*. The right hands of the Bodhisattvas of the row on the sinister are raised in the pose of paying homage (*vandanābhinayī*), while their left palms rest on their seats. Their attributes are perched on a flower (mostly *utpala*), the stalk of which has reared up from the gap between the thumb and the forefinger of their left palms. The upper two have a halo behind their heads and shoulders. Commencing with the uppermost are: (i) Khagarbha (i.e. Ākāśagarbha) with a *chintāmaṇi* gem; (ii) Vajrapāṇi with a thunderbolt on an *utpala*; (iii) Mañjuśrī, distinguished by his *śikhaṇḍaka-kākapaksha* coiffure, with a book on an *utpala*; and (iv) presumably Sarvanivaraṇa-Vishkambhin with an indistinct attribute (perhaps a *maṇi*) on a stalked *utpala*.

The second sculpture (Pl. 26.31),[49] 77·5 cm. high, was found within another niche of the same wall of the later antechamber of Monastery 1. It bears an affinity with the first in composition but not in style and workmanship and is much later than the first one. Stylistically, it is datable to the tenth century A.D. The central image represents possibly Śākyamuni Buddha, as there are branches of a *Bodhi* tree (which, however, is not the normal representation of the *aśvattha* tree) above his halo; the figure is seated in *vajra-paryaṅkāsana* in *bhūmisparśa-mudrā*. The eight bejewelled two-armed

Bodhisattvas, arrayed in two vertical rows of four each on either side of the main image, are seated nearly in the *mahārājalīlā* attitude, each on a *viśva-padma.*

The right palms of the Bodhisattvas of the row on the dexter are placed on their seats, their characteristic attributes held by their left palms which rest on their raised knees. Starting from the top on the dexter, the first one is Samantabhadra with a sword placed vertically on a lotus. Next is Maitreya with a *stūpa* against his *jaṭā-mukuṭa,* holding the twig of the *nāgakesara* flowers. The third is Avalokiteśvara carrying the stalk of a lotus. The bottom one of this row is Kshitigarbha who holds a branch culminating in a bunch of three globular objects, representing, presumably, a *kalpadruma*. The right palms of the Bodhisattvas of the row on the sinister show the *vara-mudrā*, the left palms with the stalk of a flower resting on their seats. The topmost is Khagarbha (Ākāśagarbha) with a gem perched on the flower. Next is Vajrapāṇi with a thunderbolt on an *utpala*. The third is Mañjuśrī, with the *śikhaṇḍaka-kākapaksha* coiffure, holding the stalk of an *utpala* bearing a book. The object on the flower in the case of the fourth figure, presumably of Sarvanivaraṇa-Vishkambhin, is uncertain.

The third sculpture,[50] 1·15 m. high, was unearthed on the later floor of the ambulatory (or court) of Temple 5. The central image of this sculpture (Pl. 26.32) is similar to the image[51] within the recess (facing the entrance) of the western wall of Temple 4 at Ratnagiri. Both these images, in *vajra-paryaṅkāsana* on a double-petalled lotus and in *samādhi-mudrā*, are adorned with ornaments including a short crown and wear *jaṭā-mukuṭa* having a few locks of hair falling on shoulders. First I identified the image with Vajrarāga.[52] Thereafter, I tentatively suggested the identification of the deity with Dharma-śaṅkha-samādhi-Mañjuśrī (Amitābha-Mañjuśrī or Vāk).[53] I still harbour doubts in my mind about the exact identification of the deity who might even be a transcendent Tathāgata like Amitābha and Vairochana.[54]

The central figure has on either side four bejewelled two-armed Bodhisattvas (eight in all, in two vertical rows), all seated in *mahārājalīlā*, each on a *viśva-padma.* With a halo behind their heads, the Bodhisattvas have right palms near their chest and hold their characteristic attributes in their left palms which rest on their seats. Starting from the bottom on the dexter side, the Bodhisattvas are: (i) Avalokiteśvara with the stalk of a full-blown lotus; (ii) Maitreya with the branch of *nāgakesara* flowers; (iii) Samantabhadra with the stalk of a flower supporting a sword; (iv) Ākāśagarbha (?) with the stalk of a flower crowned by a jewel (?); (v) Vajrapāṇi (on the top of the sinister-flank) with the stalk of an *utpala* bearing a thunderbolt; (vi) Mañjuśrī, with the *śikhaṇḍaka-kākapaksha* coiffure, holding the stalk of an *utpala* capped by a book; (vii) Sarvanivaraṇa-Vishkambhin (?) carrying a *ratna* (?) on a flower with a stalk; and (viii) Kshitigarbha (?) with a stalk ending in a leaf or bud.[55]

Notes and references

1. Phyllis Granoff, 'A Portable Buddhist Shrine From Central Asia', *Archives of Asian Art*, Vol. XXII, 1968-1969, pp. 81-95; Pratapaditya Pal, 'A Note on the Mandala of The Eight Bodhisattvas', *Archives of Asian Art*, Vol. XXVI, 1972-73, pp. 71-73; M. Yoritomi, 'An Iconographic Study of the Eight Bodhisattvas in Tibet', *Indo-Tibetan Studies* (D.L. Snellgrove Festschrift), ed. T. Skorupski, (Tring, 1990), pp. 323-332. Phyllis Granoff pointed out that the *Ashṭa-mahā-Bodhisattva-maṇḍala* had been described in the *Ashṭamaṇḍalaka Sūtra* which was translated into Chinese by Amoghavajra between A.D. 746-771.
2. *Niṣpannayogāvalī*, ed. by Benoytosh Bhattacharyya, (Baroda, 1949).
3. *Ibid.*, p. 46.
4. *Ibid.*, p. 50.
5. *Ibid.*, pp. 58 and 59.
6. *Ibid.*, pp. 66 and 67.
7. *Ibid.*, Introduction, pp. 23-32; Benoytosh Bhattacharyya, *The Indian Buddhist Iconography* (Calcutta, 1958), pp. 83-98.
8. *Niṣpannayogāvalī*, p. 6.
9. *Ibid.*, pp. 85 and 86.
10. *Sādhanamālā*, ed. by Benoytosh Bhattacharya, Vol. I, Reprint (Baroda, 1968), pp. 49 and 50. In this *sādhana* there are eight Bodhisattvas on the eight petals of the lotus on which Lokanātha is seated. As Lokanātha himself is the *maṇḍalādhipati*, Gaganagañja takes the place of Lokeśvara (Avalokiteśvara), the other seven Bodhisattvas being Maitreya, Kshitigarbha, Vajrapāṇi, Khagarbha, Mañjughosha, Vishkambhin and Samantabhadra. *Sādhana* no. 280 (*Sādhanamālā*, Vol. II, p. 557), a *sādhana* of Yamāntaka, mentions Kshitigarbha, Khagarbha, Lokeśvara, Vishkambhin and Samantabhadra, with their left palm showing *tarjanī-mudrā*.
11. Antoinette K. Gordon, *The Iconography of Tibetan Lamaism*, First Indian Edition (New Delhi, 1978), p. 60.
12. Yoritomi, *op. cit.*, p.328.
13. Gordon, *op. cit.*, p. 60.
14. Yoritomi, *op. cit.*, pp. 328-30.
15. Granoff, *op. cit.*, p.88.
16. Walter Eugene Clark, *Two Lamaistic Pantheons*, Reprint (New York, 1965), Vol.II, pp. 8, 9 and 273.
17. Gordon, *op. cit.*, p.60.
18. Granoff, *op. cit.*, p. 88.
19. Yoritomi, *op. cit.*, pp. 328 and 330.
20. Gordon, *op. cit.*, p. 61.
21. Granoff, *op. cit.*, p. 88.
22. Yoritomi, *op. cit.*, pp. 328-30.
23. Krishna Deva, *Images of Napal* (New Delhi, 1984), P1. CIV, B; John K. Locke, *Buddhist Monasteries of Nepal* (Kathmandu, 1985), Fig. 52; and A. J. Gail, *Klöster in Nepal* (Graz, 1991), Tafel XIX.
24. Ramaprasad Chanda, *Exploration in Orissa*, Memoirs of the Archaeological Survey of India, No. 44 (Calcutta, 1930), p. 9 and Pl. II, Figs. 1 and 5. (I could not get hold of the article of Chanda, published in the *Journal of the Royal Society of Art*, Vol. LXXXII, August 17, 1934). In 1928 Haran Chandra Chakladar visited Lalitagiri, Udayagiri and Ratnagiri and published two short articles entitled 'A Great Site of Mahayana Buddhism in Orissa' in *The Modern Review* for August, 1928, pp. 217-223, and 'Uḍishyāya suvṛihat prāchīna bauddhapīṭha' (in Bengali) in the *Pravāsī* for Āśvin, 1335, pp. 811-818.

25. Chanda, *op. cit.*, p. 13 and Pl. VI, Figs. 1 and 3.
26. *Ibid.*, Pl. II, Fig. 4. This shows the front (north) view of the unfinished modern temple, built by the *sādhu* with the materials from the ruins. After the removal of the sculptures and door-jambs, the structure was gradually denuded of the stones. It no longer exists.
27. This image has been identified with Sthirachakra Mañjuśrī by N.K. Sahu in his *Buddhism in Orissa* (Utkal University, 1958), p. 193 and Fig. 25; Chakladar illustrated this image on p. 816 of the *Pravāsī*. Sahu illustrated the colossal image of Buddha in Fig. 22, while Chakladar published it on p. 221 of *The Modern Review* and on p. 812 of the *Pravāsī*.
28. This image might be the one referred to by Chanda: 'About two hundred yards to the north of the *maṭha* stands in the open a two-armed image of Mañjuśrī (6′ 8″ by 2′ 9″)'; Chanda, *op. cit.*, p. 8.
29. Chanda, *op. cit.*, Pl. II, Fig. 1; Sahu, *op. cit.*, pp. 192 and 193 and Fig. 23; Chakladar, p. 815 of the *Pravāsī*.
30. As already noted, Ramaprasad Chanda mentioned in his *Exploration in Orissa* that two images had been removed to Padamdaspur by a zemindar. On an enquiry, an old man at Lalitagiri informed me that three large-sized images were removed to Padamdaspur near Mahanga by Sitakanta Ray. On my way from Lalitagiri to Cuttack in the afternoon of the 2nd January 1993 I visited Mahanga in search of these images. After making several enquiries I went to the zemindar's house at a locality called Parasurampur (a part of Mahanga, a large village having a Post Office and a Police Station) by the local people. Unfortunately, Prabhanjan Ray, the present owner of the house, was away from Mahanga. However, the young son of the sister of Prabhanjan Ray who happened to come to his maternal uncle's house from Cuttack on that very day took me to the Hanumān Temple. To my delight I found the tall image of Ākāśagarbha standing by one side of the entrance-opening of the enclosure-wall of the Hanumān temple. The youth told me that he had heard about another tall image installed by the other side of the entrance-opening, but he could not throw any light on the present whereabouts of this missing image; this image might have represented a Bodhisattva. The Hanumān temple is said to be owned by Prabhanjan Ray, son of Giridhari Prasad Ray.
31. Ramaprasad Chanda acquired this image and also the following one for the Indian Museum from the family of Ramgovinda Jagadev (who was a zemindar and proprietor of Udayagiri) who had removed some images from Lalitagiri, Udayagiri and Ratnagiri to his house at Kendrapara (District Cuttack, Orissa; *Exploration in Orissa*, p. 13, Pl. VI, Fig. 3). N.K. Sahu, *op. cit.*, p. 198, Fig. 36. In these two published photographs, the right forearm of the Bodhisattva, which is now damaged, is seen in a perfect state of preservation, the palm being against a lotus.
32. Chanda, *op. cit.*, p. 13 and Pl. VI, Fig. 1.
33. Sahu, *op. cit.*, p. 198, Fig. 37.
34. 'Notes on the Antiquities of the Nálti, the Assia, and the Mahábináyaka hills of Cuttack', *Journal of the Asiatic Society of Bengal* (hereafter abbreviated *J. A. S. B.*), Vol. XXXIX, 1870, Part I, pp. 158-161 (for Nalti or Lalitagiri).
35. 'The Alti Hills in Cuttack', *J. A. S. B.*, Vol. XLIV, 1875, pp. 20 and 21 (for Vāsulī Ṭhākurāṇī temple).
36. *Bengal District Gazetteers*: *Cuttack* (Calcutta, 1906), p. 221.
37. The sketch of this image has been illustrated by John Beams in *J. A. S. B.*, Vol. XLIV, 1875, Pl. VI.
38. Chanda, *op. cit.*, p. 9, Pl. II, Fig. 5.
39. Sahu, *op. cit.*, p. 194 and Fig. 26. He wrongly notes its findspot as Hātikhāl.
40. *J. A. S. B.*, Vol. XXXIX, 1870, p. 160. According to Rajendra Lala Mitra, to whom Banurji handed over the inscribed slab for decipherment, the inscription 'comprises about one-fifth of the right side of the record and is so weather-worn that it cannot be read'; *The Antiquities of Orissa*, Vol. II, Reprint (Calcutta. 1963), p. 265.

41. *Bengal District Gazetteers: Cuttack*, pp. 221 and 222.
42. Another photograph, taken in 1953, is available in the Photo-archives of the Calcutta Circle of the Archaeological Survey of India.
43. Chanda, *op. cit.*, p. 9 and Pl. II, Fig. 4; Sahu, *op. cit.*, p. 192 and Fig. 27.
44. *Indian Archaeology 1986-87—A Review*, New Delhi, 1992, p. 67.
45. *Ibid.*, Pl. XXX A.
46. Benoytosh Bhattacharya, ed., *Sādhanamālā*, Vol. I, Reprint (Baroda, 1968), p. 50.
47. Debala Mitra, *Ratnagiri (1958-61)*, Vol. I, Memoris of the Archaeological Survey of India, No. 80 (New Delhi, 1981), pp. 190 and 191 and Pl. CXXXVIII A.
48. *Ratnotpala* according to *Sādhana* no. 18, *Sādhanamālā*, Vol. I, p. 50; *ratnamañjarī* according to *Maṇḍala* no. 22, *Niṣpannayogāvalī*, p. 67.
49. Mitra, *op. cit.*, pp. 191 and 192 and Pl. CXXXVIII B.
50. Debala Mitra, *Ratnagiri (1958-61)*, Vol. II, Memoirs of the Archaeological Survey of India, No. 80 (New Delhi, 1983), pp. 314 and 315 and Pl. CCLX.
51. *Ibid.*, pp. 290 and 291 and Pl. CCXXXVIII.
52. *Indian Archaeology 1960-61—a Review*, p. 29 and Pl. XXXVII A. In the *Vāksādhana* (*Sādhana* no. 66) of the *Sādhanamālā*, Vol. I, p. 133, Vajrarāga, a form of Mañjuśrī, is noted in *vajrāsana* and in *samādhimudrā*.
53. *Sādhans* nos. 64 (*Dharmaśaṅkha-samādhi-sūchaka-dharmadhātu-vāgiśvara-sādhana*) and 81 (*Dharmaśaṅkhasamādhi-Mañjuśri-sādhana*) of the *sādhanamālā*, Vol. I, pp. 129 and 157-158.
54. Mireille Bénisti in her article entitled 'Au Sujet de Représentations Indiennes de Vairocana et de ses Mudra' (published in *Akṣayanīvī*, ed. Gouriswar Bhattacharya, Delhi, 1991, pp. 259-267) has not agreed to the identification of the image with Vairochana or Mahāvairochana by Ryūken Sawa and Motohiro Yoritomi of Japan where this transcendant Tathāgata is represented often in *samādhi-mudrā*. Thus, she writes: 'Au Japon Vairocana on Mahāvairocana est représenté effectuant la *samādhimudrā*, *mudrā* de la méditation ou du recueillement (fig. 1) ou la *bodhyagrīmudrā*, *mudrā* du point de la connaissance ou de la fine pointe de la connaissance (fig. 2). It faut remarquer, au passage, que la *samādhimudrā* y est aussi attribuée à Amitābha, cette dualité n'étant en rien gênante pour l'identification des images puisque cela se passe dans un milieu où le culte est vivant et où l'on dispose d'informations assurées. Mais ces attributions—notamment celle de la *samādhimudrā* à Vaiocana—n'autorisent pas, à elles seules, à en admettre l'existence hors du contexte japonais: le faire constituerait une extrapolation qui ne pourrait être retenue'. According to her, Vairochana has been represented in India in *dharmachakramudrā* with a single exception in *bodhyagrī-mudrā* by a bronze image (from Nalanda, now in the National Museum) which, she feels, betrays a contribution from a foreign country, even it was cast in India—which is not sure. She has not attached any importance to the *mantra* of Mahāvairochana inscribed on a sculpture at Lalitagiri. She still insists on her identification of the image of Ratnagiri as Dharmaśaṅkha-samādhi-Mañjuśrī—the identification she proposed earlier in her book entitled *Contribution à l'étude du stūpa bouddhique indien: les stūpa mineurs de Bodh-Gaya et de Ratnagiri* (Paris, 1981), Vol. I, p. 111, Fig. 134. In both the *sādhanas* (*Sādhana* nos. 64 and 81) of the *Sādhanamālā* Dharma-śaṅkha-samādhi Mañjuśrī is enjoined to wear *kumārābharaṇas* (ornaments befitting a young boy or child) and *pañcha-chīra* (hair arrayed in five locks); this type of coiffure, also called *śikhaṇḍaka-kākapaksha*, is also made for a child even now in some parts of India. In many images a *hāra* with an amulet, tiger-nails and medallions (which act as charms for averting evil) is worn by Mañjuśrī, as he is conceived as a *kumāra*. Even in this image, Mañjuśrī, one of the eight Bodhisattvas flanking the central image, is characterized by the *śikhaṇḍaka-kākapaksha* coiffure which is absent in the central image. It is, therefore, not reasonable to identify the central image with a form of Mañjuśrī.

Alex Wayman is in favour of identifying the image with Śākyamuni. On p. 37 of *The Enlightenment of Vairocana* by Alex Wayman and R. Tajima (Delhi, 1992), Wayman writes as follows. 'Here we learn that the lord of the Tathāgata family is Bhagavat Śākyamuni, and that here are also eight great Bodhisattvas. Hence, the deity surrounded by eight Bodhisattvas may be this form of Śākyamuni in the pure abode (*śuddhāvāsa*), said to be seated on a lion throne formed by the Bodhisattvas of the tenth stage who had magically transformed themselves into lions'. According to him, the *samādhi-mudrā* is not Vairochana's. Elsewhere on pp. 102-103 of the above book he suggested for Vairochana 'space' (*ākāśa*)-*mudrā* in which the four of fingers of one palm are laid upon the corresponding ones of the other, with the tips of two thumbs (rising upwards slightly) touching each other and the base of the two palms resting on the lap.

In the English abstract of his voluminous Japanese book on the Evolution of Esoteric Buddhism, Motohiro Yoritomi noted that Vairochana Tathāgata in *dhyāna-mudrā* sits in the centre of the *Sarvavid-maṇḍala* (p. 707). I quote below an extract from a letter (dated 30.9.1993) written by Motohiro Yoritomi to me. 'About the Vairocana images, I must tell you that there are three types of Vairocana in the text of Buddhist Tantras. (a) Abhisaṁbodhi-Vairocana, expounded in the *Vairocanābhisaṁbodhitantra*—no Sanskrit full text, only quotation, and Chinese translation and Tibetan translation; its *mudrā* is *samādhi-mudrā*. You can attest it from Tibetan and Chinese translations. (b) Vajradhātu-Vairocana, expounded in the *Tattvasaṁgraha-tantra*.Its *mudrā* is *bodhyagrī mudrā* (or *jñānamuṣṭi-mudrā*). You can understand it from the example from Kashmir. (c) One of the *pañcatathāgatas*, expounded in the *Niṣpannayogāvalī*, the *Guhyasamāja-tantra* and other *anuttarayoga*-class *tantras*. According to B. Bhattacharyya, the *mudrā* of the *anuttarayoga*-class Vairocana is *bodhyaṅgī*; however, after we have checked the original manuscripts kept at many libraries and universities, we found some troubles on the reading of the *bodhyaṅgī*. Anyhow the Vairocana image kept at Lalitagiri has an inscribed *mantra*—*Namaḥ samanta-buddhānaṁ āḥ vīra huṁ khaṁ*—which is attested from Tibetan and Chinese translations'.

The *mantra* of Vairochana, according to the *Mahāvairochanasūtra* (Alex Wayman and R. Tajima, *op. cit.*, pp. 13,74 and 317), is *Namaḥ samantabuddhānāṁ a (āḥ) vīra hāṁ khaṁ.* Thus we cannot easily brush aside the evidence if this *mantra* inscribed on an image (No. 28 of Sculpture-shed at Lalitagiri) in *samādhi-mudrā*, seated in *vajra-paryaṅkāsana* and having the hair tied in the shape of a bun on the top of the head. The image should be accepted as representing Vairochana. Indian images inscribed with the *mantras* of the deities represented on sculptures are no doubt rare, but there are a few instances where the *mantras* are available. As for an instance, an image of Tārā from Nalanda bears her *mantra*—*oṁ Tāre tuttāre ture svāhā* (A. Ghosh, *Nālandā*, sixth edition, New Delhi, 1986, p. 46).

Thus, in India Vairochana used to be represented not only by the *dharmachakra-mudrā* and *bodhyagrī-mudrā* but also by the *samādhi-mudrā*, a *mudrā* commonly associated with Amitābha in India.

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Kshetrapāla—a study

R. Nagaswamy

Introduction

Kshetrapāla is one of the most important deities in the Śaiva temples. The daily worship (*nitya pūjā*) is generally concluded in a Śiva temple with the worship of Kshetrapāla. This paper deals with the origin and development of the deity and his representation in icons, specially in Tamilnadu.

Legendary origin

The origin of the deity is narrated in the *Āgamas.* The *Ajitāgama*, for example, mentions the circumstances under which Kshetrapāla emanated (under the chapter *Kshetrapāla utpatti*).[1] Evil planets were afflicting this world, the nether world, and the heaven. Desirous of giving happiness to all the worlds, Brahmā requested Śiva to protect the *kshetras.* Śiva conceded this request, took the form of a nude child, with eight arms, and having a dog as his vehicle, assumed the form of Kshetrapāla. Since he assumed the responsibility of protecting the fields and looking after the *yoga-kshema* (well-being) of the *kshetras*, he came to be called Kshetrapāla. The evil planets disappeared from the *kshetras*, on seeing his form.

Vedic roots

The concept of the protector of the *kshetra*, as the *kshetrapati*, is rooted in the *Vedas.* Rudra is often spoken as the *kshetrapati*, i.e. Lord of the fields, in the *Vedas.* In the *Śatarudrīya* of the *Kṛishṇa Yajur-veda*, Rudra is called Ātatāvin and Kshetrapati (*namo Rudrāy-ātatāvine kshetrānāṁ pataye namaḥ*).[2] 'Homage to Rudra, who protects us with his bow, respects to the sustainer of the field.'[3]

It may be remembered that this passage clubs three aspects—Rudra, Ātatāvin and Kshetrapati. The word Rudra is interpreted to mean 'the remover of life's worldly suffering (*Rudraḥ-saṁsāra-duḥkha-drāvakaḥ*); he is called Ātatāvin, i.e. one who protects with his bow (*ātatā-jyena dhanushā avati rakshati iti ātatāvin*). By the word Rudra, his power to provide happiness to those who take refuge in him is meant. Ātatāvin represents protection. The living beings are destined to die. Rudra reveals himself to them as Brahman, the *tāraka.* By this the living beings attain immortality and liberation and that is intended by the word *kshetrapati.*

Bhaṭṭa Bhāskara, the great commentator, gives an interpretation to the word *kshetrapati.* Just as the king protects the people, living in his country, from threats and also gives comforts to those taking refuge in him, so also Parameśvara protects those living in the settlements. He takes the word *kshetra* to mean *śarīra* (body) and cites the famous *Gītā* passage (*idaṁ śarīraṁ kaunteya kshetraṁ ity=abhidhīyate*) and states *teshāṁ svāmī kshetrāṇāṁ patiḥ tasmai namaḥ iti.*

Kshetrapāla and Bhairava

Kshetrapāla is also called Kshetrarāja, Kshetradeva, Kshetra or Kshetrapāla *Pillaiyar* (in Tamil). In the iconographic representation, Kshetrapāla and Bhairava have identical features in some respects and this gives rise to wrong identification. Quite often it is impossible to distinguish them unless their exact position in the temple layout is known and the traditional ritual position is comprehended. This has prompted T.A. Gopinatha Rao to make the following observation.

'For the protection of the towns and villages, from evil deities and from bad men the shrine of Kshetrapāla should be in the north-east corner of the town or village, the image of the Kshetrapāla being set up and *pūjā* offered to it systematically. It is best (*uttama*) for the shrine to face the west; it may face the south, but it is not very good to do so (*madhyama*) and to make it face the east is the worst (*adhama*).'[4] Gopinatha Rao further notes: 'the *Piṅgala nighaṇṭu* distinctly mentions that Kañchuka, Kāri, Mukta, Nirvāṇi, Siddha Kapāli, Vaṭuka and Bhairava are the other names of Kshetrapāla. From this it will be evident that the so-called Kshetrapāla is no other than Bhairava, described elsewhere and therefore need not have been treated here in a separate chapter; but since the *āgamas* deal with this aspect of Śiva, which is said to be his one-ten-thousandth part under a separate head and in a separate chapter, the arrangement of the Āgamas is here followed strictly.'[5] It appears that Rao held the identity of Kshetrapāla with Bhairava as absolute.

Kshetrapāla different from Bhairava

However, it is necessary to distinguish them both on account of their manifestation and function and that is the reason why the *Āgamas* devote separate chapters for them. Śiva himself is called Bhairava, when he cut off the head of Brahmā for his arrogance and went about begging with the skull in hand. Kshetrapāla manifested, at the request of Brahmā, to protect the *kshetra*—the settlements and fields—from the evil *grahas.* The former is a *saṁhāra* aspect and the Kshetrapāla aspect is an *anugraha* form to protect. The latter is propitiated for the protection of the field and residences, whereas Bhairava is worshipped for attainment of power. It must, however, be admitted that without the contextual knowledge, there is every likelihood of one being mistaken for the other. Any one identification may be questioned.

Āgamas on Kshetrapāla

For a proper understanding of the concept of Kshetrapāla and his worship, it is useful to know what the *Āgamas* have to say. The *Āgamas* distinguish three forms of Kshetrapāla: *Sātvika*, *Rājasa* and *Tāmasa*. The *Aṁśumadbhedāgama*[6] gives not only this threefold classification but also the colour of their respective forms, arms and weapons:

Type	*Sātvika*	*Rājasa*	*Tāmasa*
colour	white	red	black
arms	two or four	six	eight
aim of worship	for liberation (*mukti*)	for fulfilment of all desires (*sarva-kām-ārtha-siddhy-artham*)	warding off all diseases

In general, worship of Kshetrapāla is to protect the people from loss or destruction caused by robbers and enemies, to prevent all kinds of sufferings, and to remove all impediments caused by evil planets, *bhūtas*, *piśāchas*, etc. The deity is also responsible for the fertility of the soil and abundance of grains.

Iconography

The iconographic description given in various texts are almost identical with minor variations. Kshetrapāla should be shown standing on a *padma-pīṭha* or *bhadra-pīṭha*, nude and with his hair flowing above the head as fire. He should be shown with a terrible countenance with round eyes and protruding teeth. He may be shown with two, four six or eight arms. He should wear serpents, as ornaments round his arms, legs, waist, etc. The *yajñopavīta* should also be a serpent. A long chain of bells or skulls should be shown across his body reaching down to the anklets. He can also be shown with a *channavīra* on the chest and *nūpuras* around his anklets. He will have three eyes and resemble Bhairava in appearance.[7]

If two-armed, he will wield a *śūla* and a *kapāla* with his arms. If four-armed, he should hold a *śūla*, a *kapāla*, a sword and a shield. In the case of the six-armed deity, a snake and a *tomara* will be held in addition to the ones mentioned above. The *ḍamaru* and *khaṭvāṅga* are added to the above, if he has eight arms.[8]

The *Aṁśumadbhedāgama* gives the weapons as per the categorisation *satva*, *rajas* and *tamas*.[9] According to the first category, Kshetrapāla has a *śūla* and a *kapāla* in his right and left hands respectively. When he is four-armed, he holds a *śūla* and a *khaḍga* with his right hands and a *kapāla* and a *ghaṇṭā* with his left hands; or he shows with his front hands *abhaya-mudrā* and *vara-mudrā*, the other right and left hands bearing respectively a *śūla* and a *ghaṇṭā*. In the case of the *rājasa-mūrti*, Kshetrapāla carries a *śūla*, a *khaḍga* and a *ghaṇṭā* with his right hands and a *kheṭaka*, a *kapāla* and a *nāga* (or *pāśa*) with his left hands. The attributes in the right hands of the eight-armed *tāmasa-mūrti* are a *śūla*, a *khaḍga*, a *ghaṇṭā* and a *dhanus* and in the left hands a *kheṭaka*, a *kapāla*, a *nāga* (or *pāśa*) and a *bāṇa*.

The *Chidamabarakshetra-sarvasvam*,[10] a text followed in the Naṭarāja temple of Chidambaram, refers to a four-armed Kshetrapāla, who should hold in his right hands a *śūla* and a *ḍamaru* and in his left hands a *kapāla* and an uncertain attribute.

Worship of Kshetrapāla

The worship of Kshetrapāla is a must in daily worship at the end of *nitya pūjā*, the *archanā*. The *Kāmikāgama* (*pūrva*, 76, 26) prescribes west as the place of worship of Kshetrapāla (*paśchime kshetrapālaṁ cha*). However, while dealing with the *naivedya-vidhi*, the text gives the north-east or a place between west and north-west as the place of Kshetrapāla, where worship should be offered to him at the end of the *archanā*. If there is a sculptural image of Kshetrapāla, daily *naivedya* should be offered, says *Kāmikāgama*.[11] In the absence of a *pratimā*, *bali* should be offered on the *bali-pīṭha*; according to the same authority Kshetrapāla should also be worshipped daily in the fire (*nity-āgnikārya*). The worship of Kshetrapāla in the midnight is considered sacred according to the *Makuṭāgama*.[12] So it is dealt with in this text in the chapter on *udvāsana*, the last of the daily worship.

Most of the texts dealing with the worship of Kshetrapāla, give the *dhyāna-śloka* (meditation-verses) for the worship.[13] In addition there are at least two *gāyatrīs* (sacred chants), mentioned in the texts. Thus, the *gāyatrī* given in the *Ajitāgama* (56, verse 9) is: *śvānavāhāya vidmahe tīkshṇadaṁshṭrāya dhīmahī tanno rudraḥ prachodayāt.* In this *gāyatrī*, Kshetrapāla is held identical with Rudra. The other *gāyatrī* is found in *Yogajāgama*[14] which is: *oṁ śūlahastāya vidmahe śvānavāhāya dhīmahī tanno bhairavaḥ prachodayāt.* Here Kshetrapāla is held identical with Bhairava, but it is not unlikely that this *gāyatrī* is cited out of context.

Kshetrapāla as *parivāra-devatā*

Kshetrapāla is worshipped as a *parivāra-devatā* in Śiva temples as per *Āgamic* prescriptions. The *Kāmikāgama* prescribes the north-east as the direction of Kshetrapāla, where *bali* should be offered. It also holds the space between west and north-west where Kshetrapāla-*bali* could appropriately be offered. At any rate all the *Āgamas* mention Kshetrapāla as one of the main *parivāra-devatās* to whom daily *bali* should be offered. That not only underlines the importance of Kshetrapāla but also helps us in identifying the Kshetrapāla sculptures in temples.

How Kshetrapāla was worshipped in temples through historical times may now be briefly noticed here. The earliest example of a subshrine to Kshetrapāla that has survived is perhaps the one found in the north-east of the enclosure of the Kailāsanātha temple (Rājasiṁheśvara temple) at Kanchipuram, built by the Pallava ruler Rājasiṁha[15] around A.D. 700-725. It is plastered in later times and its features are obscured. The image of Kshetrapāla is seen standing on a globular object, probably representing the *kshetra*. Its position is significant and conforms to the ritual needs. Among the very early Choḻa temples, the one at Kodumbalur, assignable to the ninth century A.D., presents a subshrine which is intact with an image (original dedication) identified with Bhairava.[16] This may now be identified with Kshetrapāla, as it is located in the north-east. In the Kadambavaneśvara temple at Erumbur, in District South Arcot, is an inscription of Parāntaka Choḻa, *Madurai-koṇḍa Parakesari*, in his twenty-eighth regnal year (A.D. 935), referring to the construction of the temple with *ashṭa-parivāra-devatās* by one Guṇavan Aparājitan.[17] One of the *parivāra*-shrines is identified with the Bhairava shrine, but the inscription itself does not mention specifically what the *parivāra-devatās* are. Hence its identification with Bhairava is not certain. It might be that of even Kshetrapāla. S.R. Balasubrahmanyam has a chapter on *ashṭa-parivāra-devatās* and holds that one of the *parivāra-devatās* is Bhairava.[18] This view needs revision. In all likelihood it is Kshetrapāla on account of ritualistic necessity. In most other living temples it would be easy to identify Kshetrapāla, as the worshipping priest would be reciting the *dhyāna-ślokas* and offering *archanā* at the end of the day's worship and in most cases it is Kshetrapāla.

Kshetrapāla in the niches of the main shrine and in subshrines

According to the *Āgamas*, *parivāra-devatās* could be represented on the main shrine, in a subshrine between the main shrine and the *prākāra*-wall, or in a subshrine attached to the *prākāra*-wall. What has been seen in the Pallava temple at Kanchipuram is a subshrine attached to the *prākāra*-wall. There is a stone image of Kshetrapāla in the front *maṇḍapa* of the great temple of Thanjavur, built by Rājarāja Choḻa in A.D. 1010. The standing sculpture, eight-armed, is an illustrious example of the Choḻa period, of the age of Rājarāja Choḻa and is an original consecration. But it is not in its original position. The *maṇḍapa* housing the sculpture is itself a construction of the seventeenth century. Kshetrapāla ought to have been, like other *parivāra-devatās*, in a subshrine in the north-east of the *prākāra*-wall.[19] The subshrine found in the Kodumbalur temple is an example of a shrine between the main temple and the *prākāra*. We do have some illustrious examples of Kshetrapāla housed in a niche (*deva-koshṭha*) of the main shrine itself. Two examples may be cited.

In the northern wall of the Gangaikondacholapuram temple, built by Rājendra Choḷa I in A.D. 1025, is found a nude figure which I have identified as Bhairava.[20] It has a terrific countenance, protruding teeth and flames-like hair and holds a *śūla*, a *pāśa*, a *paraśu* and a *khaḍga* with the right hands and *agni*, a *kapāla*, a *khaṭvāṅga* and a *ghaṇṭā* with the left hands. In view of its position (namely the north-east) and a comparison with the Thanjavur and Thiruvalanjuli[21] sculptures and as a result of this study there is a justification for identifying this image with Kshetrapāla. Similarly, the image[22] in the Irāvateśvara temple at Darasuram may be identified with Kshetrapāla instead of Bhairava. These two are the illustrations of Kshetrapāla images in the niches of the main shrine.

Kshetrapāla in the gopuras

When *gopuras* emerge as a dominating architectural feature, from about the twelfth century A.D., the images of Kshetrapāla were housed in the *gopuras* as well, the best illustration being the Chidambaram *gopuras*. It would be advantageous to begin with the western *gopura*. An image of Kshetrapāla is housed in a niche in the western side of the north-west part of the west *gopura*. Interestingly, there are label-inscriptions above the niches in the *grantha* script of the twelfth century A.D. The inscription above the image of Kshetrapāla reads *Kshetrapāla Pillaiyār*. We have seen that some of the *Āgamas* prescribe the position between west and north-west for the Kshetrapāla image. The image in the western *gopura* corresponds to the prescription. Obviously, this should be taken to refer to the west-facing edifices. On the east face of the eastern *gopura*, in the north-eastern corner, is an image of Kshetrapāla of great merit. The north and the south *gopuras* also carry images of Kshetrapāla.[23]

We have seen that the inscription in the western *gopura* calls the image *Kshetrapāla Pillaiyār*. *Pillaiyār* in Tamil is generally used for son. Gaṇeśa is generally called *Mūtta Pillaiyār*, and Subrahmanya, *Ilaya Pillaiyār*. Thus the word *Pillaiyār* in the context of divinities is used for sons of Lord Śiva. Kshetrapāla is thus considered a son of Śiva,[24] a child manifestation to be distinguished from Bhairava.

It is also necessary to mention at this stage that the Kshetrapāla/Bhairava image is found at the entrance door-jambs of the *gopuras* and the entrances of some of the ancient forts.[25] From the functional point of view, the deity is positioned there to protect the *kshetra*, the entrance to the *vāstu* and may, therefore, be identified with Kshetrapāla, but people call it Bhairava. It may require a different but detailed study to arrive at a positive identification.

Images of Kshetrapāla in metal

A number of images of Kshetrapāla in bronze have survived, and they go back to the time of the Early Choḷas. But they have been identified by most scholars with

Bhairava. In the light of the present study, I feel that some of them could be identified as Kshetrapāla.

An outstanding image of Kshetrapāla comes from Thiruvenkadu, now in the Tanjore Art Gallery,[26] assignable to the age of Rājarāja Choḻa. It is perhaps the finest representation, in metal, of the theme. It is interesting from another angle. An inscription of the age of Rājarāja in the great temple of Thanjavur mentions an image of Kshetrapāla with eight arms in copper, but the image no longer exists. The Thiruvenkadu image with its close resemblance to the stone image in Thanjavur and Thiruvalanjuli is the best illustration of Rājarāja's age.

Three images of Kshetrapāla are mentioned in the inscriptions of the great temple at Thanjavur, two of the age of Rājarāja and the third dated in the reign of the Vijayanagara ruler Devarāya. The first inscription[27] mentions the consecration of a golden image of Kshetrapāla by Emperor Rājarāja Choḻa, in his twenty-seventh regnal year (A.D. 1012). The full iconographic description is available. The main image of Kshetrapāla was made of gold, while his pedestal was of silver. The image was made solid but small in size, about four and half inches in height from head to foot (*pād-ādi-keś-āntaṁ mūnru virale mūnru torai usarattu* i.e. from head to foot three fingers and three *torai* in height). It had four hands holding a *śūla*, a *kapāla*, a *pāśa* and a *ḍamaru*. The image inclusive of its pedestal weighed 72$\frac{1}{2}$ *kalañju*. The image was of considerable importance, for it was consecrated by the emperor and it was made of gold. It is mentioned in the very first order of the emperor, in which he mentions the consecration of the *stūpi* on the top of the *vimāna* and also the golden *Sribali* plate and the golden *Kolakai devar*, which were the most essentials for the daily *pūjā*. But for the mention of the name, the image could have easily been identified with Bhairava.

The second image mentioned in the Thanjavur inscription[28] was made of copper and consecrated by the chieftain Tennavan Mūvendavelān. This image was set up in the third regnal year of Rājendra, son of Rājarāja. It was a solid image, about fifteen inches in height from head to foot. It stood on a lotus-pedestal, about nine inches in height. The emblems held in the hands are not mentioned, but the image should have resembled in all probability the stone image of Kshetrapāla with eight arms, in the same temple in the front *maṇḍapa*. The point of interest about the second image of Kshetrapāla is that it was set up along with a two-armed dancing image of Bhairava, about ten inches in height. It also stood on a pedestal, about nine inches in height. This image was also set up by the same chief in the same year.

The third image mentioned in the inscription[29] of the temple was presented with a facial band (*paṭṭam*) of silver by one Vallabhadeva in the reign of Devarāya in A.D. 1447. It is not known whether the image mentioned is of stone or of metal, but what is significant is that the donation was made with the prayer that the expedition (*dig-vijaya*), undertaken by the chieftain, should be successful. Thus, it is known that images of Kshetrapāla were specially propitiated in the fifteenth century for victory in war-expeditions.

Independent temples of Kshetrapāla

Independent temples of Kshetrapāla could also be built. Such temples would be called *svayampradhāna* temples with their own *parivāra-devatās.* Such independent temples built in the Choḷa period exist.

The *Īśānagurudeva-paddhati*[30] devotes an entire chapter on Kshetrapāla. It states that the image should be made of *kaṇishṭha-daśa-tāla* measurement and should be portrayed as a youth. The other iconic descriptions are similar to the ones mentioned in other *Āgamas.* Two-armed or four-armed or eight-armed images of Kshetrapāla are mentioned. In addition to the weapons mentioned in other texts, the *Īśānaguru* includes *gadā* as one of the weapons. If two-armed, the image could hold a *gadā* in the right hand and a *kapāla* in the left hand. Interestingly, *Īśānaguru* identifies Kshetrapāla with Vaṭukanātha.[31]

The *maṇḍapa* erected in front for the consecration of the independent temple should have sixteen pillars. The four *toraṇas* occupying the four cardinal directions are called *sama, vibhūti, suvala,* and *arga.* The *dvāra-kumbhas,* two for each direction, are symbolic of eight deities named (i) Heruka, (ii) Tripurānta, (iii) Agni, (iv) Vetāla, (v) Agnijihva, (vi) Karāla, (vii) Ekadaṁshṭra and (viii) Bhīmarūpa. Obviously, these are the *dvārapālas* of the *Yajñyaśālā* of the Kshetrapāla temple. Eight flags, each with the figure of a dog, should be placed in eight directions and they should be called by the name of the directions as Agni Sārameya, Indra Sārameya, Yama Sārameya, Nirṛiti Sārameya, Varuṇa Sārameya, Vāyu Sārameya, Soma Sārameya, and Īśāna Sārameya. In the central *kalasa,* which is the *pradhāna kalasa,* Kshetrapāla is invoked. The subsidiary *kumbhas* in the eight directions enshrine Anala, Agnikeśa, Kāla, Ghaṇṭārava, Mahākrodha, Piṅgalakeśa, Prasitāsana and Ūrdhvakeśa. The *Īśānaguru* also mentions eight Bhairavas, namely (i) Asitāṅga Bhairava, (ii) Ruru Bhairava, (iii) Chaṇḍa Bhairava, (iv) Krodha Bhairava, (v) Unmatta Bhairava, (vi) Kapāla Bhairava, (vii) Bhīshaṇa Bhairava and (viii) Saṁhāra Bhairava, as guardian deities of a Kshetrapāla temple. A Chaṇḍikeśvara as in Śiva temples is also mentioned, who goes by the name Kshetra Chaṇḍa. Sapta-mātās are also mentioned as secondary deities. Two main *dvārapālas* guarding the main shrine are called Śūlī and Kapālī. Four hunters, black in colour, wielding bows and arrows, should stand on all the four sides. The worship with *bali* should be offered to the eight *dikpālas,* the mount dog, Vīrabhadra, Gaṇapati, Sapta-mātās and Kshetra Chaṇḍeśa. Separate *gopura* should also be erected wherein should stand Saumya and Ugra as Dvārapālas. The *Īśānaguru* also prescribes *bali* outside the *gopuras* to Kshetrapāla-*gaṇas.*

Bhava, Sarva, Paśupati and the other eight deities are called the *maṇḍala-devatās* of Kshetrapāla. *Nitya pūjās* and *naimittika pūjās* and *nitya utsavas* should be performed to Kshetrapāla. Annual *mahotsava* should also be performed in which the flag with the figure of a dog should be hoisted. Separate *tīrtha-yātrā* festival is also prescribed for annual celebration.[32]

A Choḷa temple of Kshetrapāla

In this connection an independent temple of Kshetrapāla at Thiruvalanjuli in District Thanjavur, built in the time of Rājarāja I, is of great importance. The temple was built by Dantiśaktivitankī *alias* Lokamahādevī, the chief queen of Rājarāja, in his twenty-fifth regnal year (A.D. 1010).[33] The inscription mentions *pūjās* offered to the deity three times daily (*muchchandi*), offering food such as *Tayiramudu*, *Aḍaiyamudu*, *Appamudu* and *Sarkaraiyamudu*, and also anointing the deity with oil on Wednesdays and Saturdays.[34] Both Rājarāja and his queen Lokamahādevī were greatly devoted to Kshetrapāla and gifted lands, jewels, etc. They performed *Tulābhāra* and *Hiraṇyagarbha* respectively at Thiruvisalur and sent two of the golden flowers as offerings to this Kshetrapāla.[35] The temple inscriptions also mention that Rājarāja's two daughters, Kundavai Nangai, the eldest, and Madevadigal, the middle one, gifted a gold face with *ūrdhvakeśa* embedded with a facial diadem studded with gems. Many other gold ornaments were also presented by them.[36]

Conclusion

In the Śaiva temples Kshetrapāla is an important deity whose daily worship is a must. Many of the sculptures identified as Bhairava could now be identified with Kshetrapāla. Though iconographically Bhairava and Kshetrapāla have common features, their functions and place in rituals are different and require careful distinction.

Notes and references

1. N. R. Bhatt (ed.), *Ajitāgama*, Vol. III (Pondicherry, 1991), *Kshetrapāla-utpatti.*, pp. 7-13.
2. Bhandarkar (ed.), *Śatarudrīya* with commentaries of Bhaṭṭa Bhāskara and Sāyaṇa (Poona, 1888), pp. 151 and 152.
3. C. Sivaramamurti, *Śatarudrīya: vibhūti of Śiva's Iconography* (New Delhi, 1976), pp. 16 and 49 and Fig. 25.
4. T.A. Gopinatha Rao, *Elements of Hindu Iconography*, Vol. II, Pt. II (Second Reprint, Delhi. 1985), p. 495.
5. *Ibid.*, p. 498.
6. *Aṁśumadbhedāgama*, 49th chapter, cited by T.A. Gopinatha Rao, *op. cit.*, pp. 240 and 241.

tṛividhaḥ kshetrapālas=tu sātviko rājasas=tamaḥ |
śvetaṁ raktam=atho kṛishṇaṁ sātvik-ādi-guṇaṁ bhavet ||
dvi-bhujaṁ vā chatur-bāhu śāntaṁ sātvikam=uchyate |
shaḍ-bāhu ch=ogra-vadanam=ugraṁ syād=rājasaṁ smṛitam ||
tāmasaṁ ch=ashṭa-bāhuṁcha ete vai sama-pādakāḥ |
sthānakaṁ padma-pīṭhe tu bhadra-pīṭhe tu vā yathā ||

7. *Pūrva-kāraṇāgama* : 103-15.
   saṁdaṁshṭraṁ Bhairav-ākāraṁ kṛishṇa-varṇaṁ digambaram |
8. N. R. Bhatt (ed.), *Rauravāgama* (Pondicherry, 1988), pp. 54-55.
   tr-yakshaṁ ashṭa-bhujaṁ raudraṁ ūrdhva-keśaṁ su-daṁshṭrakam |
   raudra-dṛishṭiṁ cha kṛishṇ-ābhaṁ bāl-endu-kṛita-śekharam ||
   naraśiraṁ-cha dhurttūraṁ nāgasyaiścha su-saṁyutam |
   karayoḥ pātra-piṇḍaṁ tu tato makara-kuṇḍalam ||
   khaṭvāṅgaṁ cha bhujaṅgaṁ cha pāśaṁ śūlaṁ cha dakshiṇe |
   kapālaṁ ḍamarukaṁ khaḍgam=agniṁ vāme cha hastake ||
   sarv-ābharaṇa-saṁyuktaṁ śiromālā-samanvitam |
   nagnam=ah-yaṁbarai yuktaṁ kiṁkiṇī-vara-saṁyutam ||
   nūpuraṁ yajña-sūtraṁ cha pāde kiṁkiṇī-saṁyutam |
   prabhā-maṇḍala-saṁyuktaṁ mṛiṇmayaṁ parikalpayet ||
9. *Aṁśumadbhedāgama* 49th Chapter, cited by Gopinatha Rao, *op. cit.*, p. 241.
   śūlaṁ dakshiṇa-haste tu kapālam=itare dhṛitam |
   dvi-bhujaṁ hy=evam=ākhyātaṁ chatur-hastam=ath=ochyate ||
   para-haste tu savye tu khaḍgaṁ ghaṇṭāṁ tad-anyake |
   athavā pūrva-haste tu abhayaṁ varad-ānvitau ||
   pūrvavat-para-hastau dvau ghaṇṭāṁ vā vāma-hastake |
   sātvikaṁ hy=evam=ākhyātaṁ rājasaṁ śṛiṇu suvrata ||
   śūlaṁ khaḍgaṁ cha ghaṇṭāṁ cha dakshiṇe (tu) kara-traye |*
   kheṭakaṁ cha kapālaṁ cha nāgaṁ vā pāśa-vāmake ||
   tāmase tu dhanur-bāṇaṁ dakshiṇe'dakshiṇe dhṛitam |
   śeshaṁ rājasavat=khyātaṁ raktakeś-ordhva-maṇḍalam ||
   ugra-dṛishṭi-samāyuktaṁ nānā-nāga-vibhūshitam |
   tri-netraṁ nagna-rūpaṁ cha kshetrapālaṁ prakalpayet ||
10. *Chidambarakshetra-sarvasvam*, Vol. II (Chidambaram, 1982).
11. C.Swaminatha Sivacharya (ed.), *Kāmikāgama* (Madras, 1975), *Pūrva* 6, v. 77.
    aiśānyāṁ bali-dānaṁ syāt tatr=aiva Kshetrapāline |
    vāyu-varuṇa-dikbhāge Kshetrapāla-baliṁ kshipet ||

    These two alternatives were probably given when Kshetrapāla has to be placed either in the east-facing entry or the west-facing entry. Kshetrapāla-images are found occupying both these positions in the Chidambaram temple, once in the eastern Gopura and again in the western Gopura.
12. Swaminatha Sivacharya (ed.), *Makuṭāgama* (Madras, 1977), Chapter, 2, p. 98.
    ardha-rātraṁ viśesheṇa kshetrapāl-ārchanaṁ śubham.
13. *Ajitāgama*, III, *ibid.*, 56.
    kshetrapālaṁ tato dhyāyet śyāma-varnaṁ tri-lochanam |
    ūrddhva-keśaṁ su-daṁshṭraṁ cha bhrūkuṭī kuṭil-ānanam ||
    padma-pīṭhe sthitā-ṅghriṁ cha sarpa-mekhalayā yutaṁ |
    kshep-ottuṅgam=ati-kruddhaṁ kshudra-ghaṇṭā-mayīṁ tathā ||
    karoṭikā-mayīṁ ch=āpi mālāṁ ā-gulpha-lambinīm |

dadhānam=uragaṁ baddhaṁ bhūshitaṁ chandra-rekhayā ||
dakshiṇe śūla-ḍamaru-khaḍga-nāg-eshu-saṁyutaiḥ |
vāme kapālaṁ dadhānaṁ ghaṇḍ-āstra-charma-chāpa-samāyutaiḥ ||
ashṭābhiś=cha karaiḥ yuktaṁ nīla-megha-sama-dyutim |
kshetra-dhyāna-kramaṁ vakshye śṛiṇushv=aivaṁ prajāpate ||
dvi-dordaṇḍaṁ chatur-hastaṁ shaṭ-bhujaṁ cha ashṭa-hastakam |
su-daṁshṭraṁ bhairav=ākāraṁ kṛishṇa-varṇaṁ dig-ambaram ||
sarpa-yajño-pavītaṁ cha śiro-mālā-vibhūshitam |
ūrddhva-keśaṁ su-vṛitt-ākshaṁ nāg-ābharaṇa-saṁyutam ||
tri-netraṁ nagna-rūpaṁ cha kiṁchit prahasit-ānanam |
śūlaṁ dakshiṇa-haste tu vāma-haste kapālakam ||
dvi-bhuje tu prakartavyam......................... |
ḍamarukaṁ savya-haste vāma-haste tu pāśa-dhṛik ||
triśūlaṁ savya-haste syāt kapālaṁ vāma-hastake |
chatur-bhujam=iti khyātaṁ shaḍ-bhujaṁ ch=aiva kārayet ||
khaḍgaṁ dakshiṇa-haste tu vāma-haste tu kheṭakam |
nāgaṁ cha dakshiṇe haste tomaraṁ vāma-hastake ||
triśūlaṁ dakshiṇe haste vāma-haste kapāla-dhṛik |
shaḍ-bhujam iti vikhyātaṁ bhuj-āshṭakam idaṁ śṛiṇu ||

14. *Yogajāgama* cited in *Ajitāgama* 162, p. 39.
15. E. Hultzsch (ed. & translated), *South-Indian Inscriptions* (abbreviated henceforth as *SII*), Vol. I (Madras, 1890), p.9.
16. S. R. Balasubrahmanyam, *Early Chola Temples* (Madras, 1971), p. 28.
17. *Ibid.*, p. 67.
18. *Ibid.*, p. 329.
19. See below.
20. R. Nagaswamy, *Gangaikondacholapuram* (Madras, 1970), Pl. 17A.
21. For Thiruvalanjuli, see para below.
22. F. Learnhault, *Darasuram* (Paris, 1987), Pl. 48.
23. James C. Harle, *Temple Gateways in South India* (Oxford, 1963), pp. 103-119.
24. *Ibid.*, pp. 118 and 119, Pl. 156.
25. For example, Thirumeyyam fort in District Pudukkottai.
26. For the image of Kshetrapāla, now in the Tanjore Art Gallery, see T. N. Ramachandran, *Lalit Kalā*, Nos. 3 & 4, p. 55.
27. E. Hultzsch (ed. & translated), *SII*, Vol. II (Madras, 1891), no. 1, p. 6.
28. *SII*, Vol. II, no. 43, pp. 172 and 173.
29. *SII*, Vol. II, no. 71, p. 339.
30. T. Ganapathi Sastry (ed.) *Īśānagurudeva-paddhati* (Trivandrum, 1925), Chapter 60, pp. 580-586.
31. *Ibid.*, Chapter 60, v. 21.
32. *Ibid.*, Chapter 60, v. 83.
33. R. Nagaswamy, *Art and Culture of Tamilnadu* (Delhi, 1980), pp. 88-91.
34. *Ibid.*, pp. 89 and 90.
35. *Ibid.*, p. 91.
36. *Ibid.*, p. 91.

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Historical and iconographic aspects of Śākta Tāntrism

M.C. Joshi

Introduction

The term *tantra*[1] which is derived from the verbal root *tan* (i.e. to expand), in its developed forms serves as a mechanism emerging out of a seed-point (*bindu*) and turning into a complex of cultic practices, ritual mysticism and secret rites backed by a philosophical thought and deep spirit of devotion centring round the concept of Supreme Power which is regarded in the Śāktik context as Primordial Female Energy with diverse manifestations.

According to traditional beliefs the Tantras, whether associated with Śaktism (cult of the mother-goddess) or other sectarian orders of Indian origin are regarded to be of a high antiquity interwoven with mythology. However, assessment of the available data, literary and archaeological, despite limitations, gives us a different picture about the origin and growth of Śākta-Tāntrism and other similar systems. Basically, the former seems to have its roots in the prehistoric concepts of the mother-goddess or fertility and the ancient systems of her adoration which are well proved by scores of her representations in the old World right from the Upper Palaeolithic Age, if not earlier. Some sociologists have attempted to link up the emergence of the concept of the mother-goddess with matriarchy and matrilineal societies.

Background

In the case of India, the earliest example of a mother-goddess figurine is reported from an Upper Palaeolithic level in the Belan Valley near Allahabad (Uttar Pradesh) by late G.R. Sharma. Made of bone, the figurine is in the round and in shape resembles a harpoon. On the basis of Carbon 14 determinations, it has been dated between 23,840 (± 830) B.C. and 17,765 (± 340 B.C.).[2]

Another discovery made by Sharma, was a colourful stone marked with natural triangles resting on a raised-ground at Baghor in the Son Valley (near Mirzapur, U.P.) in an Upper Palaeolithic level. According to Sharma, even now several similar stones in that area are worshipped as Argarimai or Mother-Fire.[3] In his opinion the concept represented by these stones with triangles had links with the primitive mother-goddess and it showed a continuity in the later Tantra tradition wherein triangles manifest a vital symbolism connected with fertility. We have no specific comments to offer on Sharma's hypothesis. Yet, it may be difficult to trace a direct link between the Belan-Baghor evidence and the mother-goddess figurines located in Neolithic-Chalcolithic context especially from Baluchistan and other north-western parts of Pakistan including Kulli-Zhob areas or elsewhere in the subcontinent.

Of the interesting mother-goddess figurines brought to light in recent times in Pakistan, mention may be made of the specimens from Sheri Khan Tarakai (District Bannu) and Mehargarh-Nausharo. The former site, dated between 4500 and 3000 B.C. by the excavators, has yielded several female figurines of plain and painted varieties, amongst which noteworthy examples can be broadly placed into three classes; (i) specimens bearing head-dress with back-curled horns surmounting a pinched nose, (ii) type with a black spot showing affiliations with some kind of snake-goddess and (iii) examples showing exaggerated genitalia. Of these, the most significant is one bearing enlarged female organ with traces of male genital above. Excavators call this rare variety as hermoaphroditic[4] figurine.

The idea of fertility is also reflected in another protohistoric female figure from Periano Ghundai (Pakistan), showing only lower half marked with a *yoni*.

The early (protohistoric) mother-goddess figurines are mostly executed in folkish styles with their conventionalized features indicating a long tradition behind their make-up. However, some of them found in Harappan association at Nausharo (Pakistan) are somewhat refined.[5] Mother-goddess figures of Harappa and Mohenjo-daro offer us several varieties, suggesting existence of different traditions of craft and religion in the Harappan societies. On Indian side, some figures of mother-goddess are reported from only three Harappan sites (*viz.*, Lothal in Gujarat, Banawali in District Hissar, Haryana and Dholavira in Gujarat) which show religious diversities amongst Harappan population in the subcontinent. Besides, the representation of female deities on Indus seals/sealings manifests growth of rituals indicating animal sacrifice, fertility and formal cultic forms as suggested by a female figure within branches of *pipal* tree or females arranged in rows, etc. It is also not unlikely that mother-goddess in terracotta and female deities on seals etc., represented two types of beliefs pertaining to goddesses at least in two levels of the society in the same settlement, *viz.*, the authoritarian class and common people.

In the present state of our knowledge, we are unable to understand precisely the position of mother-goddess as fertility-deities or other female divinities in the religious fabric of the protohistoric societies of India. It is also doubtful whether the Harappan population had any idea of a single Supreme Female Goddess with or without a male parallel within their cultural or religious structure and whether they were governed by magician-priests or had a developed religion.[6]

Amongst later Chalcolithic cultures of lower India, we are tempted to mention a tiny figurine of a headless goddess in clay, kept in an equally small container from Inamgaon (Maharashtra), found buried under a house-floor[7] (1300 B.C. to 1000 B.C.). I am not sure as to which extent it may be desirable to compare this headless figure with Lajjā-Gaurī of the historical periods. However, the headless nature of the figures suggests their parallelism with the medieval form of a Tāntrik *devī* called Chhinnamastā.

The oldest literary works of India, *viz.*, the Vedas, also preserve some interesting elements of Tantras connected with Śaktism, although the main stream of Vedic religion was not purely Śāktik in character. Of the Vedic female divinities, the most significant from the standpoint of historical development of Śaktism are Aditi—the Universal Mother, Ushā—the dawn, Rātri—the night, Sarasvatī—the Supreme Mother and the river par-excellence (*Ambitame*, *Nadītame*, etc.) or Vāk—the speech, besides Pṛithivī—the earth which together with Dyaus (sky) represented the elements of universal parenthood like the Śakti and Śiva of later times. Sarasvatī is also called Bhāratī which later on becomes a synonym for language and speech.

Yet, the most important Vedic concept pertaining to the growth of Śaktism is that of Vāk who represents first-perception of infinite, incomprehensible and invisible Energy in the form of sound. In fact, Vāk is supposed to have four stages, *viz.*, the subtlemost state called *Parā-Vāk*; internal vibrant stage styled as *Paśyantī*; more developed vibrant-form known as *Madhyamā-Vāk* and externally audible sound named as *Vaikharī*. *Parā* and *Paśyantī* are believed to represent the higher stages of a perception, but, according to tradition, realisation and exposure of *mantras* as divine words are possible only in the state of *Madhyamā-Vāk*. It is on this account that Vāk has been called as Veda-Mātā or the Mother of the Vedas in the *Atharvaveda* (cf. *Stutā mayā sahitā Vedamātā*, 19-71-1). Following the same tradition, the medieval Tantras called the goddess as *Śabdānāṁ jananī*, i.e. creator of the words (cf. *Śabdānāṁ jananī tvam=atra bhuvane Vāgvādin=īty=uchyase*, verse 15, *Laghustava* in *Pañchastavī*).[8]

In this connection, we may like to cite the most important of the Vedic hymns called the *Vāgambhṛiṇi Sūkta*[9] in the *Ṛigveda* (X. 125) which is stated to have been authored by Vāk, daughter of sage Ambhṛiṇa. In this *Sūkta*, the female Energy has been glorified in the first person as Supreme Power, upholder of sovereignty, controller of various deities like Rudras, Ādityas, Vasu, Soma, Tvashṭā, etc. She is also called a source of treasures, sustainer of nature's forces, bestowers of favours, etc. The hymn preserves strong elements of monotheistic thought which forms the very base of historical Śaktism.

Amongst the later Vedic female deities a notable addition is Śrī-Lakshmī or Śrīmā(?) mentioned for the first time in *Śrī-Sūkta*, a supplementary hymn of the *Ṛigveda*. As the goddess of prosperity, wealth, fortune and vegetation, she is styled in this *Sūkta* variously as a golden doe (*hiraṇyavarṇāṁ hariṇīm*) decked with gold and silver strings, as a column of pleasant golden-light bearing lotus garlands and as a royal divinity seated within a golden enclosure with horses on the front and chariots in the middle and deriving joy on account of the presence of trumpeting elephants (*Hastināda-pramodinīm*). Subsequently, Lakshmī with flanking elephants became most common with the Buddhists, Jains and Brahmanists, and was incorporated in the Tāntrik pantheon amongst ten Mahāvidyās. Till today *Śrī-sūkta* is commonly recited in the Śākta-Tāntrik rituals, especially during the ceremonial bath of the goddess. This *Sūkta* is addressed to Jātavedas or the Fire,[10] as can be seen from the following extract, which shows that the goddess was originally being invoked through the performance of *yajña* (fire-sacrifice) (cf. *Chandrāṁ hiraṇmayīṁ Lakshmīṁ Jātavedo ma āvaha*).

A verse in the *Sūkta* also makes a reference to Jyeshṭhā or Alakshmī, the goddess of poverty and misfortune, who is identical with Dhūmāvatī of the developed Tāntrik tradition as Mahāvidyā (*Kshutpipāsāmalāṁ Jyeshṭhām Alakshmīṁ nāśayāmy=aham*).

The *Bṛihadāraṇyaka Upanishad* (7.4) has an important reference associating Vāk with ritualistic terms like *svadhā*, *svāhā*, *vashaṭkāra*, etc. which also form elements of the Śākta-Tāntrik *mantra* tradition.

The historical position

By the middle of the first millennium B.C., certain names and forms of the goddess like Umā-Haimavatī, Ambikā, Durgā, Vairochanī, Śarvāṇī, and Bhavānī had already become known.

In connection with the construction of the fort, the *Arthaśāstra* of Kauṭilya refers to the worship of goddess Aparājitā and Madirā which are also recognised in the medieval Tantra tradition. Aparājitā, i.e. the invincible, might have been an Indianized representation of Greek Nike. Madirā, who is the goddess of wine, is also called as Sudhā or Surādevī in Tantra rituals. In Tantra texts, she is described as a lustful and young damsel of sixteen years with three eyes, wearing red clothes and ornaments:

(*Bhāvayech=cha Sudhādevīm amṛitānanda-nandinīm* ।
sadā shoḍaśa-varshīyāṁ prasannāsyāṁ trilochanām ।
kāmadevena ch=onmattā kanyakā rūpadhāriṇī[11] ॥)

According to Purāṇic tradition, Madirā or Sudhādevī had her birth in the churning of ocean like that of Lakshmī.

What is more interesting in the *Arthaśāstra* (XIV. 177-1) is a sacrificial hymn (*mantra*) invoking Aditi and Sarasvatī and other deities for the preservation of a fort. (*Adite*! *namas=te*, *Anumate*! *namas=te*, *Sarasvati*! *namas=te*, *Deva Savitar namas=te*! *Agnaye svāhā*, *Somāya svāhā*, *Bhuḥ svāhā*, *Bhuvaḥ svāhā*). Kauṭilya also indicates the employment of the diverse types of fires in the sacrifices obtained from the kilns of potters or smiths, funeral pyre, houses of fallen women and devoted wives or *chaṇḍālas* using animal fat and flesh as offering as a part of magico-religious practices. He also mentions certain *mantras* with non-Indian expressions in full or in parts like: *Alite Valite manave svāhā* (XIV, 178-3, 2) or *Amile kimile vasujāre prayoge phakke vāyudhdhe vihale svāhā* (XIV. 178-3, 4), in the context of some magico-religious rituals and practices which are found to exist in the Śābara (aboriginal) tradition of the Tantras.

The growth of the cult of the mother-goddess between third century B.C. and first century B.C., is amply indicated by varieties of well-carved ring-stones (Pls. 28. 1 and 2) found in various urban sites from Taxila to Patna, in the Indo-Gangetic plains. A stone plaque from Rajgir and the mother-goddess figures in terracotta and metal recovered from various historical sites also indicate a similar tradition. The ring-stones present several varieties[12] with minute carvings in low relief consisting of various geometric designs, scrolls, animals, birds, vegetation, especially palm trees with figures of the mother-goddess which in a few cases are fixed on the points of a triangle. A damaged ring-stone from Ropar near Chandigarh (Punjab) bears the figure (image) of a goddess, with a devotee, a hut-shaped temple, and a priest with another devotee(?).

Normally, the ring-stones have a hole in the centre but some are of the form of carved disc also. V.S. Agrawala calls these carved stones as Śrī-yantras[13] which may not be correct for historical reasons. These, however, seem to be the earliest *yantras* used perhaps by a specific group of the devotees of Śakti. The existence of the cult of the mother-goddess around the third century B.C. is also suggested by the Rajgir plaque depicting the mother-goddess in various poses with a priest or a devotee who also holds a wine-cup in one of the scenes. Existence of a cult of fertility is also indicated by a few pots, partly embossed with human figures, with conspicuous genitals found in the Śuṅga-Kushāṇa levels in Mathura, Purana Qila (New Delhi) and Bhita (near Allahabad).

Phase of further development

Perhaps, Śākta Tāntrism entered a more conspicuous phase of development after the beginning of Christian era due to closer interaction with the West, especially Asiatic West, rise of the Mahāyāna Buddhism and growth of the Pāśupata-Śaivism and other Brāhmaṇical sects.

Some of the well-known non-Indian goddesses like Cybele, Ardoxsho, Nana etc. were gradually incorporated into Brāhmaṇism as Bhadrakālī (then Dhūmā?), Mahālakshmī and Durgā-Siṁhavāhinī. Possibly, Artemis was modified into Vana-Durgā which was, subsequently, identified with Bhillī or Kirātī of Indian aboriginal tradition.

A silver plaque excavated from Ai-Khanum (Afganistan) depicts Cybele (Pl. 28.3) crossing hilly terrain on a chariot drawn by lions accompanied by Nike and priests. In this connection, we may quote the following verse of Chhoṭi Sadri (District Udaipur, Rajasthan) epigraph (A.D. 491) describing an angry Devī on a chariot drawn by fierce lions (cf. *Siṁh-ogra-yukta-ratham=āsthita-chaṇḍa-vegāḥ*[14]). In later Śākta tradition she was identified as Bhadrakālī.

Durgā on a lion as Mahishamardinī, sometime called Kātyāyanī, got associated with Mathura and Kṛishṇa during the Kushāṇa period and was popularly regarded as the daughter of Nanda and Yaśodā, the foster parents of Kṛishṇa residing in the Vindhya mountains (*Nandagopa-gṛihe jātā Yaśodā-garbhasaṁbhavā*[15]).

Possibly, followers of Śaktism during the early centuries of the Christian era borrowed from the Pāśupatas the concept of *paśu* i.e. animal (equated in terminology of Tantra with uninitiated human being) and *pāśa* (bondage of material attachments/existence). With such an ideology, Śaktism needed a long line of *gurus* with pedegrees going back to the first master-teacher, i.e. Śiva or Ādinātha himself. The tradition already existed amongst Lakulīśa-Pāśupatas of Mathura as evidenced by Chandragupta(II)'s Mathura inscription. Further, the Śāktas also adopted the ideal of unbounded compassion (as if emanating from the Mother Eternal) and the term *Śūnya* in the philosophy from the Vajrayānists (cf. expression *Jñānānaṁ chinmayātītā śūnyānāṁ śūnya-sākshiṇīṁ*, *ATHARVASIRSHA* tradition, cf. *Durgāsaptaśatī* with Hindi translation by Pandeya Ramanarayanadatta Sastri, Gorokhpur V.S. 2014, p. 51). In north India *Devī-Māhātmya* is also called *Durgāsaptasatī*.

Perhaps, Mathura was also a centre of followers of the Neo-Śaktism as one can refer from the images of Mātṛikās, Shashṭhī associated with Skanda and Durgā (Mahishamardinī), produced there.

A notable sculpture of this age found in Mathura is that of Sarasvatī, (Pl. 28.4) as a deity of the Jainas, who regarded her as the personification of the teachings of Jina. Seated on her haunches, the image is dated around A.D. 132. The head of Sarasvatī is lost and in her two hands, she carries a manuscript and an *akshamālā* both symbolizing recorded and unrecorded knowledge. The image is Jaina in character but is carved in accordance with iconographic prescription of the Śākta thought.

The *akshamālā*, or the rosary, of which the sculpture under reference shows the earliest example, represented a new concept, i.e. the symbolism of Sanskrit alphabet from the first letter *a* (अ) to the last letter *ksha* (क्ष). This also explains the name *akshamālā* i.e. the string of letters *a* to *ksha*, as is well-known in the Tantra tradition:[16]

> *Akāro prathamo devo kshakāro='ntyas=tataḥ-param* |
> *Aksha-māl=eti vikhyātā mātṛikā-varṇa-rūpiṇī* ||

In the present image, the *akshamālā* held by Sarasvatī represents the concept of sound/speech or the Vāk, i.e. the *Śabda-brahman*, already known to Śāktik thought.

The Jaina Sarasvatī of Mathura thus represents the personified form of the teachings of Jina or Tīrthaṅkara as stated by Vappabhaṭṭi (*c.* eighth century A.D.) in his *Sāradā-stotra* (cf. *Jinamukha-prathit=ākhila-vaṇmayī gaṇadharānana-maṇḍapa-nartakī*).[17]

The growth of *Tantrāchāra* (practice of Tantras) is also evidenced by certain references in the *Divyāvadānam*, a collection of Buddhist stories datable to second-third century A.D. The relevant reference[18] we propose to cite is also a part of an episode connected with the life of Buddha according to which once when Ānanda, Buddha's close associate, was roaming near Śrāvastī, Prakṛiti, the daughter of a Chaṇḍāla (Mātaṅga) fell in love with him but realizing that accomplishment of her desire was not possible, she approached her mother, a *mahāvidhyādharī* (expert in magico-religious formulas). The mother prepared sacrificial altar with burning fire and offered oblations of 108 *Ar* flowers reciting the following hymn:

Amale vimale kuṅkume sumane | Yena vaddhāsi ichchhāyā devo varshati vidyotati garjati | Vismayaṁ Mahārājasya samabhiva-vardhayitum | Devebhyo mānushebhyo gandharvebhyaḥ Śikhigrahā-devā Vishikhigrahā-devā Ānandasya-gamanāya saṅgamanāya kramaṇāya grahaṇāya juhomi svāhā |

The *mantra* is addressed to goddesses Amalā, Vimalā, etc. which appears to be part of Śabara-Mātaṅga (aboriginal) tradition composed in a kind of Prākṛit mixed with Sanskrit. Under the spell of this *mantra*, according to the *Avadāna*, Ānanda lost control of himself and felt highly disturbed. Thereupon the Buddha gave him a *mantra* called in the text as *Shaḍaksharī Vidyā* in these words:

Aṇḍare pāṇḍare kāraṇḍe keyūrer' chi haste kharagrīve Bandhumati Vīramati dhara vidha chilamile viloḍaya vishāni loke | Visha chala chala golamati gaṇḍavile chilamile sātinimne samvibhukte . . . Golamiti Gaṇḍavilāyaī svāhā.

Buddha thereafter explained to Ānanda the importance of the *mantra*, stating that if after reciting the *mantra* a protection cord (called *gaṇḍa* in Hindī) is tied on the arm it would protect the person.

The language of the hymns is primitive which cannot be fully understood now. They speak of a pre-Buddha tradition which possibly was incorporated by early Sarvāstivāda-teachers to popularize their new form of Buddhism. These *mantras* basically invoke the female deities like Amalā, Vimalā, Kuṅkumā, Aṇḍarā, or Pāṇḍarā and not the male ones and therefore can be classed as Śākta in nature.

Another notable iconographic development pertaining to Tāntrism between the Kushāṇa and Gupta periods was that of Kālī, the foremost amongst the forms of Śakti. She is mentioned as one of the seven flames of Agni in the *Muṇḍaka Upanishad* (2.4). But Aśvaghosha, the Buddhist author of the *Buddhacharitam* and *Saundarananda* describes her as a terrifying woman (divinity ?) holding a skull (*kapāla*) who attempted to disturb Buddha as a member of Māra's army (cf. *Strī meghakālī tu kapāla-hastā karttuṁ Maharshe kila chitta-moham*).

The verse probably indicates prejudicial view of a Buddhist, and what is important here is the association of a *kapāla* i.e. skull with her. Kālidāsa, the well-known Sanskrit poet, also mentions her as a Brāhmaṇical deity of significance joining the marriage of Śiva wearing ornaments made of skulls (cf. *Kālī kapāl-ābharaṇā chakāse* I; *Kumāra-sambhavam*, viii 39). The *Devī-māhātmya*, the most outstanding Śākta-Tāntrik text, (within the *Mārkaṇḍeya-purāṇa*), recognizes her as Chāmuṇḍā (VII-18) as well as Mahākālī (XII-37) representing the dreadful and dormant aspects of the Supreme Power.

The *Devī-māhātmya* which is also called *Chaṇḍī* or *Durgā-saptaśatī*, is vitally important for assessing the growth of Śaktism in the context of Indian history. It has generally been dated between the fifth and the seventh century A.D. but the absence of any reference to Gaṇeśa or Gaṇeśānī suggests that it was composed in a period when Brāhmaṇas too did not recognize Gaṇeśa as a regular deity, because other Brāhmaṇical gods like Śiva, Vishṇu, Skanda, Varuṇa and Indra are mentioned in this text. Therefore, it should be dated before the fifth century A.D., either in the early fourth or even third century A.D. The *Devī-māhātmya* has in it all the major Tāntrik characteristics like total devotion to the goddess, fire-sacrifice associated with her, system of *japa* or mystic chants, offering of *bali* including one's own flesh and reference to the ideal of material enjoyment and liberation. It mentions Supreme Power's triple forms, symbolically based on three elements, *viz.*, *tamas* (darkness), *rajas* (brilliance) and *sattva* (purity) and, respectively, represented by her aspects called Tāmasī or Yoganidrā, Mahishamardinī and Sarasvatī. The idea reflected in the *Devī-māhātmya* shows inner movement of devotees from the darkness of ignorance to the light of knowledge through some of its symbolic characters.

In the art of the Gupta age (fifth/sixth century) the best protrayal of the killing of twin demons, Madhu and Kaiṭabha (see first chapter of the *Devī-māhātmya*) is shown in a terracotta plaque from Bhitargaon (now in the Indian Museum, Calcutta) depicting Vishṇu on the snake Ananta (Pl. 28.5). It shows a weak and sleeping Vishṇu without Lakshmī with terrified Brahmā and two child-like demons. The Gupta artist has deliberately depicted a weary and sleepy Vishṇu who could kill the twin demons only with the grace of the goddess[19] as per the description in the *Devī-māhātmya*. This is in sharp contrast to Vishṇu Anantaśāyī at Deogarh, U. P. (Pl. 28.6).

The *Devī-māhātmya* also contains references to *mātṛikās* and goddesses like Śākambharī, Siva-dūtī, and Bhrāmarī; it has also elements of monotheistic philosophy of Śākta-tantras and concept of *bindu*, etc. However, the existence of Tāntrism connected with Śakti worship is well attested to by an inscription at Gangdhar in Rajasthan, because this inscription, which preserves a distinct reference to Tantra practices, is dated in A.D. 423-24. The inscription records the construction of a shrine of the goddess with Mātṛikās by a counsellor of the king. The record refers to some Tāntrik rituals in the expression *tantr-odbhūta* perhaps based on the left-hand system (*vāmāchāra*) on account of the fact that it mentions Ḍākinīs and calls the temple as *atyugrāveśma* (i.e. powerful temple where one gets all his wishes fulfilled). The relevant verse reads:

Mātṛiṇāñ=cha [pramu]dita-ghan-ātyarttha-nihrādinīnām ‖ *Tantr-odbhūta-prabala-pavan-odvartit-āmbhonidhīnām* ‖ — — — — ∪ ∪ *gatam=idaṁ ḍākinī-saṁprakīrṇṇam* ‖ *Veśm=ātyugraṁ nṛipati-sachivo=kārayet=puṇya-hetoḥ* ‖

Keeping in view the reference to Ḍākinīs, it appears that the expression '*gatam=idaṁ*' was preceded by term like *śava* or *kuṇapa* (corpse) or *muṇḍa* suggesting that it was a shrine mainly dedicated to Goddess Chāmuṇḍā (located probably in a cremation ground on the bank of Garggarā) with other Mātṛikās and attended by Ḍākinīs constantly. We, therefore, propose to restore the missing letters in the third line of the verse as '*Chāmuṇḍ-ārchā-kuṇapa*' before *gatam=idaṁ ḍākinī-saṁprakīrṇṇam.* It is quite likely that the unknown author of this inscription wanted to indicate indirectly that during daily *pūjā*, conducted according to Tāntrik rites, in the temple, the Ḍākinīs were being offered *bali* etc., which perhaps was believed to have been accepted by them with great joy, their presence being felt by a gust (of wind). Probably, on account of the performance of such Tāntrik rituals in the temple, it has been mentioned in Gangdhar inscription as *veśm=ātyugraṁ*, i.e. most powerful or effective shrine where desires get accomplished easily. Fleet's translation of the term as 'terrible abode' does not seem to be quite appropriate.[20] It may also be mentioned incidentally that the Ḍākinīs in the Tantra tradition, as preserved in *Kulārṇava-tantra*, are stated to be beautiful female divinities with serpentine faces holding *kamaṇḍalus* and *kartrikās* symbolizing purification of soul and destruction of ignorance respectively:

Ḍākinī sarpavadanā
vittajā jvalanaprabhā ।
Kamaṇḍaluṁ kartrikā cha
dhārayantī varapradā ‖
—(*Kulārṇava-Tantra*, x. 138)

It appears that in the Gupta period the goddess Durgā or Kātyāyanī was being worshipped in her various aspects including (Chāmuṇḍā and Pārvatī). The Chhoti Sadri epigraph, referred to by us earlier, however, also associates Śiva's Ardhanārīśvara form with Śaktism which is in conformity with Śākta *tantrāchāra*, for it appears to have served as the base for the growth of the concept of the *kāmakalā*, in subsequent period.

In order to understand something about the Tāntrik practices referred to above perhaps the data furnished by the *Harshacharita* of Bāṇa are not only interesting but also useful. Amongst the rituals performed on the occasion of the last illness of Prabhākaravardhana, some Śākta rites were also performed as can be seen from the following passage:

Kvachid=dipikā-dahyamāna-kulaputraka-prasādyamāna-mātṛimaṇḍalam I *Kvachin =muṇḍ-opahāra-haraṇ-odyata-draviḍa-prārthymān-āmardakam* I *Kvachid=āndhr-odhriyamāṇa-bāhu-vapr-opayachyamāna-Chaṇḍikām* I *Anyatra śiro-vidhṛita-vil-yamāna-galad-guggula-vikala-nava-sevak-ānunīyamāna-Mahākālam* I *Aparatra niśita-śastri-nikṛittaṁ-māṁśa-homa-prasakt-āptavargam* I *Aparatra prakāśa-narapati-kumāraka-kriyamāṇa-mahāmāṁśa-vikraya-prakramam.*

All the above cited references are to be assessed in one and the same context to draw a fuller picture of Śaktism, *viz.*, the worship of *Mātṛimaṇḍala* i.e. *yantra* by *kulaputras*, offering of heads (human or animal) to the god Āmardaka (Rudra) as Mahābhairava, praying to Goddess Chaṇḍikā (ten-handed Durgā) by a priest from the Andhra country, burning of *guggula* (incense) on the head to propitiate Mahākāla and offering of one's own flesh by princes (as an auspicious act). The focal point of this description by Bāṇa is probably the performance of a special *anushṭhāna* (ritual) to please the goddess along with the prescribed *āvaraṇa*, deities like Mātṛikās, Bhairava and Mahākala by priests and others in order to cure the king. A significant feature of this special Śākta ritual was offering one's own (human) flesh to the goddess which is regarded in the Śākta tradition as a great sacrifice.

The *Harshacharita* also preserves some notable references to the most secret ritual connected with some kind of *śava*(*Vetāla*)-*sādhana* performed by Mahā-Śaiva Bhairavāchārya who was a south Indian by birth:

Tasyāṁ cha kumuda-dhūli-dhavalena bhashmanā likhitasya mahato maṇḍalasya madhyasthitaṁ dīptitara-tejaḥ prasaraṁ prathu-parivesha-parikshiptam=iva śarat-savitāraṁ madhyamāna-kshirod-āvartta-vartinam=iva Mandaraṁ rakta-chandan-ānulepino rakta-srag-ambar-ābharaṇasy=ottānaśayasya śavasy=orasy=upaviśya jāta-jātavedasi mukha-kuhare prārabdh-āgnikāryam I *kṛishṇ-oshṇīshaṁ kṛishṇ-āṅgarāgaṁ kṛishṇa-pratisaraṁ krishṇa-vāsasaṁ kṛishṇa-tila-huti-nibhena vidyādharatvaṁ trishṇayā. . .Bhairavāchāryam=apaśyat. . .*

At the end of this *sādhana* according to the text, Bhairavācharya became a Vidyādhara and the king Prabhākaravardhana was granted boon by the royal goddess Lakshmī (Rājya-Lakshmī).

The *Harshacharita* also refers to *mūlamantra*, secret initiation, according to Śaiva system, offering of a buffalo as a part of sacrifical ritual on Mahānavamī (9th day of Āśvina bright half) and the miraculous Śrīparvata famous in the Tāntrik lore of India. Thus the *Harshacharita* clearly indicates that by the time of Harsha, Śākta *Tantrāchāra* appears to have taken a well-established form which perhaps underwent further modifications in later times.

This kind of religious development also presupposes a much earlier beginning for Tantra. The reference to the Tāntrik rites in the Gangdhar inscription (dated A.D. 423-24) is thus quite meaningful. To us, it appears to be almost certain that the *Maṇḍala-krama* connected with *Mātṛis* in the *Bṛihatsaṁhitā* refers mainly to the *Yantra-vidhāna* associated with Śaktism and *Tantrāchāra.*

The medieval period of Indian history, especially after the seventh century, is regarded to be the golden age of Tāntrism especially amongst the Śāktas and the Buddhists. The employment of five *Mas* (*Pañcha-makāras*), *viz.*, *madya* (wine), *mithuna* (sex), *mudrā* (use of gestures/poses in rituals), *matsya* (fish) and *māṁsa* (flesh) in the Tāntrik (Śākta) rituals and practices was gaining popularity, as is evidenced by the *Mattavilāsa-prahasana* of Mahendravarman and the *Karpūramañjarī* of Rājaśekhara. Alchemy interwoven with religious tradition was also practised by some Tāntrik ascetics and teachers with a view to turning base metal into gold and to attaining a long and healthy life.

This was also followed by the introduction of developed form of *yantras* (mystic diagram) and *maṇḍalas* as the symbolic abode of a particular aspect of the goddess and addition of more *devīs* in the system like Tripurā, Tārā, Śāradā, Bhillī or Kirātī, Mātaṅgī, Padmāvatī and others with *nityās*, *yoginīs* and other terms as a part of one complex system.

A *yantra* was regarded as superior in comparison to an image for they respectively represented the subtle (*sūkshma*) and gross (*sthūla*) forms of Devī. Tantra tradition clarifies it precisely stating that the goddess is basically formless but assumes form whenever she feels so (cf. *Nirguṇā saguṇā jātā nirākār=āpi=ākṛitiḥ* | *Adeh=āpi sadeh= āpi arūpā rūpadhāriṇīm* ||)

Other aspect of Śākta Tantras is the incorporation of the *kuṇḍalī yoga* in the system which seems to have attained perfection before the eighth century A.D. The concept is based on the existence of the same Supreme (female) Power in the universe as well as in the human body where it lies in a static or sleepy state. The sole aim of followers of Tantra is to make it rise through various rites, rituals, practices etc. This is clearly reflected in the *Devī-purāṇa* (X-9, verses 7 and 8), *Saundarya-laharī* (9-10) of Saṅkarāchārya and other texts besides the *Mālatī-Mādhavam* (V-I), the drama written by Bhavabhūti. The last named also refers to the system *nyāsa*, i.e. purification of one's own body by touching it with one's own hands with the recitation of *varṇas* and *mantras* (V-21) in various ways.[21]

Amongst the most significant *yantras* in the Śākta-Tāntrik tradition the Śrī-yantra is first referred to in an inscription from Indonesia of the seventh century[22] as a magical object which makes it clear that in the country of its origin, i.e. India, Śrī-yantra must have existed before that date along with its cultic deity Śrī-Vidyā. But as a cult it became popular in India not before the eleventh century A.D.

Śrī-Vidyā occupies an important position in Śākta-Tāntrism. The two principal divisions of Tāntrism associated with Śakti are Kālī-kula and Śrī-kula, each of which forms a complicated system of *dikshā*, *sādhana* and *saparyā* involving the main and some other divinities of common origin emerging from the ultimate source, i.e. the Primordial Energy. As is evident from the names, *kulas* associated with the goddess Kālī and the goddess Śrī or Śrī-Vidyā are, respectively, associated with destruction (*saṁhāra*) and creation (*sṛishṭi*). The complex form of these *kulas* seems to have developed in the medieval period, probably after the ninth century A.D. or so. This line of distinction, however, is sharply visible in northern/eastern India.

What is most significant for any student of iconography is the meaningful symbolism reflected in the attributes and forms of the goddesses of each *kula*. We are primarily concerned here with Śri or Śrī-Vidyā, a creative force whose highest form is represented by Mahātripurā Sundarī or Shoḍaśī. Her other forms are mainly represented by Lalitā, Tripura-Bhairavī, Bhuvaneśvarī, Bālā-Tripura-Sundarī, Rājarājeśvarī and scores of other types. Mātaṅgī, Bagalā and Kamalā are also connected with creative aspects of Śrī-Vidyā and are included in Śrī-kula.

According to Tāntrik tradition, Śrī or Śrī-Vidyā is stated to have emerged out of Mahākāmakalā, i.e. union of Mahākāla (Śiva) and Ādyā (Kālī) in a state of supreme bliss. The same is described in the *Lalitā-sahasranāman* as *chid-agnikuṇḍa* wherein the goddess Śrī is believed to have taken her birth (*Chid-agnikuṇḍa-sambhūtā*) out of the fire of consciousness. Thus Śrī or Śrī-Vidyā, as already stated, was a creative energy responsible for the expansion of creation.

It is on this account that the primary forms, attributes and colours of principal goddesses of Śrī-kula are basically earth-bound, *viz.*, red, vermillion or yellow which turn white or blue in specific conceptual context or in connection of idealization of *mukti*.

In the Tantra tradition the goddesses of Śrī-kula are described as most beautiful, young and charming and carry in their hands, *āyudhas* like *pāśa*, *aṅkuśa*, bow (of sugar-cane) and arrow, *akshamālā* and *pustaka* besides *vara* and *abhaya*.

The *pāśa* and *aṅkuśa*, bow and arrow held by Tripurā (Pl. 28.7) are symbols of worldly attachment, *ahaṁkāra*, and material desires, which draw a person close to wordly attractions.

The *Lalitā-sahasranāman* (Verses 2 and 3) clarifies finely the symbolism of the attributes of Lalitā or Śrī as below:

> *Udyat-bhānu-sahasr-ābhā chaturbāhu-samanvitā*
> *rāga-svarūpa-pāś-āḍhyā krodh-āhaṁkār-āṅkuś-ojjvalā* ‖ 2
> *manorūp-ekshu-kodaṇḍā pañcha-tanmātra-sāyakā*
> *nij-āruṇa-prabhāpūra-majjan-brahmāṇḍa-maṇḍalā* ‖ 3

i.e. 'endowed with four arms holding noose symbolising the material attachment (*rāga*), goad (*aṅkuśa*) representing the wrath or *ahaṁkāra*, bow of sugar-cane characterizing the mind full of desires for being a weapon of Kāmadeva and five arrows symbolizing five basic human faculties (*tan-mātrās*) Lalitā brightens the whole universe with her rosy effulgence.'

Other attributes, like rosary (*akshamālā*) and book (*pustaka*) often held by divine female deities, are also not without significance. The *akshamālā* which represents the Sanskrit alphabet from *a* to *ksha* is the same as *Varṇamālā*, the universal creative energy in the form of sound or echo, and the book all kind of codified knowledge covering both *dharma* (law of righteousness) and *adharma* (non-righteous law), *vairāgya* (detachment), and *avairāgya* (non-detachment), and *jñāna* (knowledge) and *ajñāna* (ignorance).

Of no less significance for the followers of Śrī-kula (sectarian family of the goddess Śrī-Vidyā) is the Śrī-yantra (the mystic diagram of Śrī) to which perhaps the earliest reference is available in the following verses of the *Saundarya-laharī*:

> *Chaturbhiḥ Śrīkaṇṭhaiḥ śiva-yuvatībhiḥ pañchabhir=api*
> *prabhinnabhiḥ sambho navabhir=iti mūlaprakṛitibhiḥ* ।
> *Trayaśchatvāriṁśad-vasudala-kalāśra-trivalayā trirekhābhiḥ*
> *s-ārdha-tavacharaṇakoṇā priṇātāḥ* ‖

The Śrī-yantra (Fig. 1) described as the abode of the goddess Śrī, consists of a central *bindu* (point), five inverted and four upward triangles within eight-and sixteen-petalled lotuses surrounded by three circles (*vṛitta*) which are enclosed in a square (*bhūpura*) marked with a projection amid each side indicating the entrances to the interior.

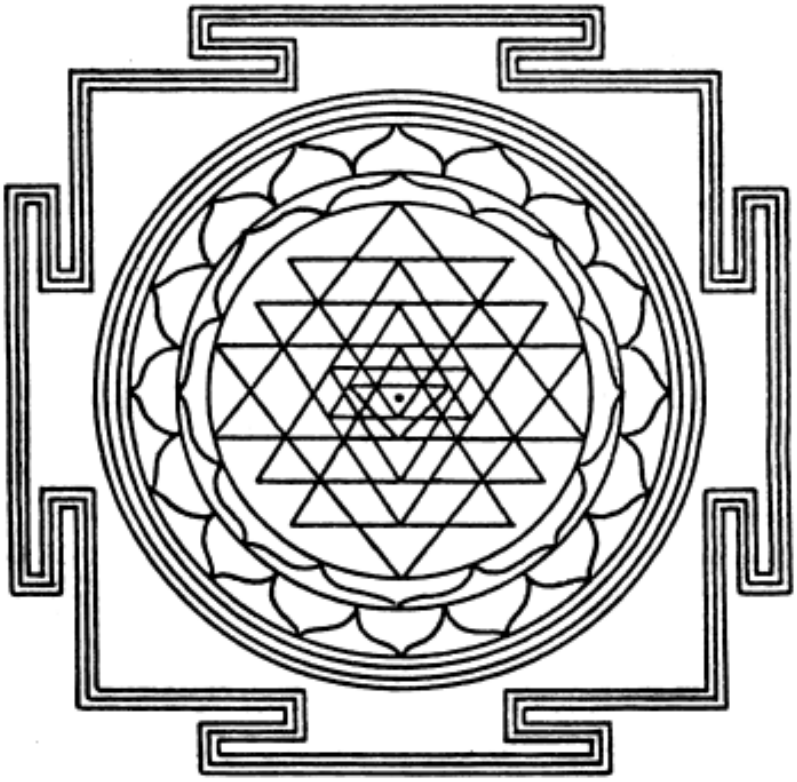

Fig. 1. Śrī-yantra

Though the Śrī-yantra has been interpreted by traditional pundits and even modern scholars of Tāntrism in metaphysical and symbolic terms, it has also some kind of materialistic association, indicated especially in its outer enclosure (*bhūpura*), four portals like those found in a fortified city or temple, central bejewelled pavilion (*ratna-maṇḍapa*) and the lion-throne represented by the central *bindu* (cf. *Vande baindava-siṁhapīṭha-lalite tvaṁ Brahma-vidyā Śive*) and her island abode of Maṇidvīpa.

Besides, different parts of Śrī-chakra or Śrī-yantra are also associated with Chārvāka, Buddhist, Saura (solar), Vaishṇava, Śaiva and Śākta philosophies. The position of Śrī or Tripurā in the Śrī-yantra is that of a great queen (*mahārājñī*) ruling over the city or country called Śrīpura which is considered to be similar to the mundane world (*saṁsāra-chakr-ātmakam*) in the *Tripurā-mahimā-stotra*. It is perhaps on this account that Śrī or Tripurā is worshipped in royal form with all her positional accessories (*aṅgas*), attributes (*āyudhas*), mount (*vāhana*) and family (*parivāra*). The *Lalitā-sahasranāma-stotra* styles Śrī, Tripurā or Lalitā as Rājarajeśvarī (empress) and *anulaṅghita-śāsana*, i.e. one enjoying absolute power.

In this context, it may also be relevant to discuss the concept of Goddess Kālī or Dakshiṇākālī which is also connected with symbolism. The *dhyāna* is as under:

Meghāṅgīṁ vigatāmbarāṁ Śiva-śav-āruḍhāṁ trinetrāṁ parāṁ
karṇalambita-bālayugmaśubhadāṁ muṇḍasraja-mālinīm ||
Vāme ch-ordhvakarāmbuje nara-śiraḥ khaḍgaś=cha savye kare
dān-ābhītī vimukta-keśa-nichayāṁ vande Mahā-kālikām ||

i.e. 'standing naked with dishevelled hair on the corpse of Śiva, Kālī, who is of the colour of a dark cloud, has three eyes and wears ear-pendants of dead bodies of children and a garland of skulls, shows *vara* (boon), *abhaya* (protection from fear), a sword and a human head in her four-hands. I bow unto her.'

Her blue or black colour symbolizes limitlessness of the Cosmic Energy or her *mahānirguṇa-rūpa* (purest formless form) that is the space itself. Her blue/black complexion also characterizes her as *sarvatattvātmikā*, i.e. united form of all elements/colours as stated in the Śākta tradition:

Mahānirguṇa-rūpā cha vachātītā kalā parā
mahājvāl-ānalair=dīptā muṇḍa-bindu-vibhushitam ||

She is without a covering for she is above all kind of illusions and she is Kālī because she governs and creates Time (*kāla*). The dead and powerless Śiva below her feet represents the *Nirguṇa-Brahman*. Her three eyes characterize the trio of light, *viz.*, sun, moon and fire. Her ear-studs in the form of bodies of dead children represent *dharma* and *adharma* and her *muṇḍa-mālā* is, in fact, the garland of fifty letters of Sanskrit alphabet, *viz.*, (*Varṇa-mālā*) which is symbolic of *Śabda-brahman*. The girdle of severed human arms around her waist indicates the loss of the *karmas* or end of all actions. She grants protection and boon to her devotee and also kills his animal instinct (*paśu-bhāva*), marked by a severed human head in the lower left hand with the sword of knowledge held in upper left hand (cf. *pāpa-puṇyaṁ paśuṁ hatvā jñāna-khaḍgena stambhavi*).

Āyudhas like *śūla* and *kartri* held by other Śākta deities including Tārā also suggest the idea of liberation (*mukti*), for they all symbolize the removal of fetters of attachment (*pāśa*).

As Kālī represents actually the *laya* (withdrawal) aspect or *saṁhāra*, her Yantra (Fig. 2) has only Śakti-triangle (i.e. triangles with apex downwards) without any Śiva-triangles (with apex upwards), for she does not symbolize *sṛishṭi*. As against this, in Śrī-yantra (Fig. 1), we have five *Śakti-trikoṇas* (triangles) and four *Śiva-trikoṇas* (triangles) to indicate creation, through the union.

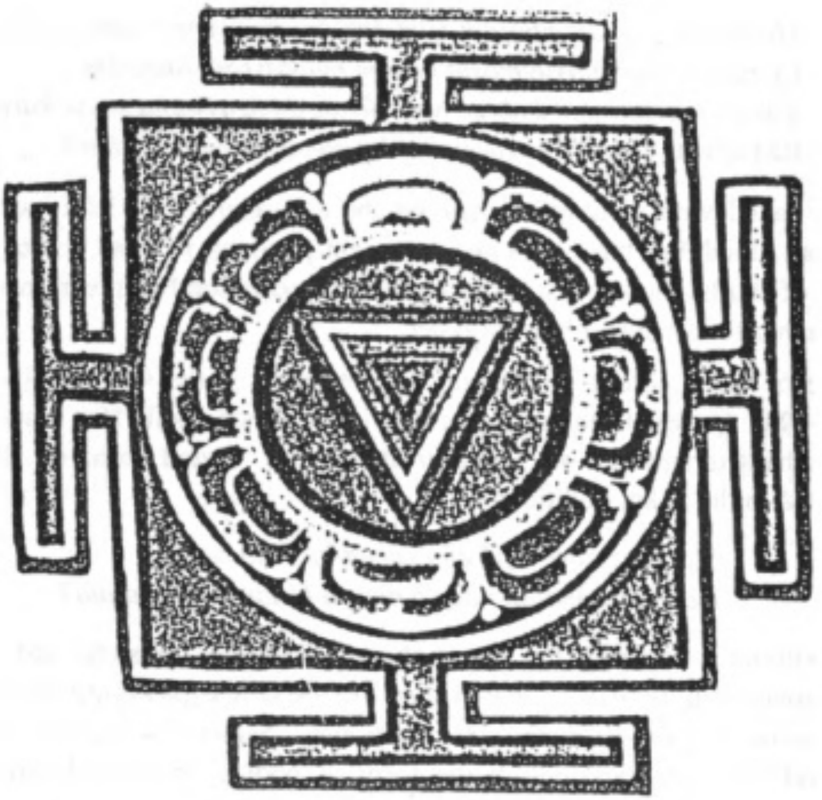

Fig. 2. Kālī-yantra with five inverted triangles, symbolic of five basic elements (after Nik Douglas, *Tantra Yoga*, New Delhi, 1971).

The last notable development in Tāntrik-Śaktism was in regard to systematisation of important goddesses after ten Mahāvidyās and their basic concept. This development followed the recognition of Tārā in Śaktism in eastern India around possibly twelfth century A.D. under Gauḍa-*krama* of Śaktism. The ten Mahāvidyās are Kālī, Tārā, Shoḍaśī (Sundarī), Bhuvaneśvarī, Tripura-Bhairavī, Mātaṅgī, Bagalā, Chhinnamastā, Dhūmāvatī and Kamalā (Lakshmī) who are at the same time equated with ten incarnations of Vishṇu and who may have had Vaishṇava inspiration conceptually. These are grouped into Kālī-kula and Śrī-kula. Kālī, Tārā, Chhinnamastā and Dhūmā are included in the former and the rest are parts of Śrī-kula. Though the basic concept of the Supreme Mother is solely monotheistic, for the purposes of initiation as per the personal nature of various devotees, they are asked to follow one of the two systems leading ultimately to the same goal.

Notes and references

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2. Govardhan Rai Sharma, *Bhāratīya Sanskṛiti Purātāttvik Ādhār* (in Hindī), (New Delhi, 1985), p. 32.
3. *Ibid.*, p. 33.
4. Farid Khan, J.R. Knox and K.D. Thomas, 'Prehistoric and Protohistoric Settlement in Bannu District', in *Pakistan Archaeology*, No. 23, 1987-88, pp. 113-175.
5. J.-F. Jarriage, 'Excavations at Nausharo' in *Pakistan Archaeology*, No. 23, 1987-88, pp. 149-203.
6. Shubhangana Atre, however, feels that the Harappans had powerful female goddess and also her male counterpart. See Shubhangana Atre, *The Archetypal Mother* (Pune, 1987).
7. *Indian Archaeology 1970-71—A Review* (New Delhi, 1974), Pl. XLIV-A & B, pp. 25 and 26.
8. *Śrī Pañchastavī*, edited and published by Sri Ram Saiva (Tarik) Asram, V.S. 1974, p. 15.
9. For translation of the *Vāgambhṛinī Sūkta*, see Abinash Chandra Bose, *Hymns from the Vedas* (Bombay, 1966), pp. 309-310.
10. Munish Chandra Joshi, *Aitihāsik Sandarbh-main Śāktatantra* (in Hindī), (New Delhi, 1988), pp. 26-27.
11. *Sankshipta Tantrakamānhikam* (Allahabad, V.S. 2023), pp. 98-100.
12. Vasudev Sharan Agrawala, *Bhāratīya Kalā* (in Hindī) (Varanasi, 1977), p. 147.
13. *Ibid.*, p. 95.
14. D.C. Sircar, 'Chhoṭī Sadṛī Inscription, Year 547', *Epigraphia Indica*, XXX (1953-54), p. 124.
15. *Devī-Māhātmya*, Chapter X, verse.
16. M.C. Joshi, 'A Note on Sarasvatī Image of the Kushan Period', *Ṛtambhara—Studies in Indology*, ed. K.C. Varma *et al.* (Ghaziabad, 1986), pp. 147-148.
17. *Ibid.*
18. *Divyāvadanam*, ed. P.L. Vaidya, (Mithila, 1959), pp. 314-315.
19. M.C. Joshi, 'A Note on Anantasayi, Vishnu Image from Bhitargaon', in *Pt. Kunjilal Dube Smriti Grantha*, ed. Rajbali Pandey, (Jabalpur, 1971), pp. 393-396.
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29

Bhūtaḍāmara, the lord of the *bhūtas*

Mallar Mitra

I

The religion preached by Buddha underwent certain changes in course of time. The changes were manifested in the process of deification which started with the rise of Mahāyāna in the early centuries of the Christian era. The pantheon developed inordinately in the Vajrayāna Buddhism in which were included deities of all conceivable descriptions. Even the Nakshatras, Rāśis, Kālas, Pāramitās, Vaśitās, *pūj-opakaraṇas* like flowers, incense, lamps and scents, *āyudhas* and individual syllables of a *mantra* were deified to protect the devotees from various perils. During this period the Buddhists also needed protection from supernatural beings. One of the protectors was conceived in the form of Bhūtaḍāmara. The present paper deals with the nature, form and a few images of this Vajrayāna Buddhist god.

Bhūtaḍāmara was quite popular in the *tāntrik* Buddhism, because as many as four *sādhanas* in the *Sādhanamālā*[1] are devoted to his worship. He is the central god of *Maṇḍala* no. 23 (*Bhūtaḍāmara-maṇḍala*) of the *Nishpannayogāvalī*.[2] A detailed description of this deity is also found in the *Bhūtaḍāmara Tantra.*[3]

Benoytosh Bhattacharyya examined one single manuscript each of the two *Tantras* with identical name, one (Acc. No. 13247) belonging to the Buddhists and the other (Acc. No. 9168) to the Hindus, preserved in the Manuscript Library of the Oriental Institute, Baroda. The Hindu *Bhūtaḍāmara Tantra*, according to Bhattacharyya, was later and more modified form of the original Buddhist *Bhūtaḍāmara Tantra.*[4]

The word *ḍāmara* derived from *ḍaṁ* means "causing tumult".[5] Bhūtaḍāmara, therefore, literally means tumult of spirits.

In the *Śabdakalpadrumaḥ* the word *bhūtaḍāmara* has been explained as: *bhūtānāṁ ḍāmaraś=chamatkāro=’tr=eti bhūtaḍāmara-śabdanirvvachane nibandhakāraḥ.*[6] In view of this Benoytosh Bhattacharyya thinks that the word *ḍāmara* means "*chamatkāraḥ*" or magic.[7]

Bhūtaḍāmara possessed a number of *mantras* to enchant the ghosts and demons and by his *ḍāmara* or magic brought them under submission. In *Sādhana* no. 266 the god Bhūtaḍāmara has been described as *bhūta-darppa-vināśanam,*[8] the destroyer of the pride of the *bhūtas*. What the term "*bhūta*" denotes is clear from the *Bhūtaḍāmara Tantra* which says that when invoked Bhūtaḍāmara gives the worshipper the power to control all supernatural beings such as ghosts, demons, *piśāchas*, *nāgas*, *kinnaras*, *apsarasas* etc. When brought under submission the *bhūtas* are supposed to provide the worshipper with all sorts of amenities.[9] It appears, therefore, that Bhūtaḍāmara was created by the Vajrayānists to exercise power over the *bhūtas* and to enchant them by his *mantras*. No wonder that such a powerful god became quite popular in the *tāntrik* Buddhism.

Exactly when the concept of Bhūtaḍāmara came into existence is not known. The *sādhanas* are helpful to some extent in this respect. *Sādhana* no. 264 was written by Vairochana[10] and no. 266 by Trailokyavajra.[11] Trailokyavajra definitely belonged to a period earlier than A.D.1165, the date of the compilation of one of the manuscripts of the *Sādhanamālā* in which the *sādhana* written by him is included.[12] If Vairochana is identified with Mahāpaṇḍita Vairochana Rakshita, a disciple of Padmasambhava and a contemporary of King Khri Sron lde Btsan (A.D. 728-764) of Tibet, he can be assigned to a period ranging from the second and third quarters of the eighth century A.D.[13] The *Nishpannayogāvalī* was the work of Mahāpaṇḍita Abhayākaragupta, a contemporary of the Pāla king Rāmapāla (*circa* A.D. 1072-1126 according to D.C. Sircar. The newly-discovered Jagajjibanpur copper-plate grant of the time of Mahendrapāla of the Pāla dynasty, however, will change to some extent the Pāla chronology). The concept of Bhūtaḍāmara is likely to have emerged in about the eighth century A.D.

II

The iconographical features of Bhūtaḍāmara as described in the *sādhanas*, the *Nishpannayogāvalī* and the *Bhūtaḍāmara Tantra* are almost identical. He is a fierce god (*saṅkruddham* in *Sādhana* nos. 264 and 265, *krodharāja* in *Sādhana* nos. 265, 266 and 267, *mahākrodham* in *Sādhana* no. 266 and the *Bhūtaḍāmara Tantra*, *mahākrodhādhipati*, *mahāvajrakrodha*, *vajrakrodha*, *mahāchaṇḍa* in *Sādhana* no. 266) and is terrible and awe-inspiring (*raudra* in *Sādhana* no. 266 and the *Tantra*, *mahāraudraḥ* in the *Nishpannayogāvalī*). His person radiates fiery flames (*sphurat-krodha-jālam* in *Sādhana* no. 264, *jvālā-mālā-kulam* in *Sādhana* nos. 265 and 266, *jvālā-mālā-kula-prabham* in *Sādhana* no. 266, *jvālā-mālā-samākulam* in the *Tantra* and *dīptaṁ yug-ānt-āgni-samaprabham* in *Sādhana* no. 265). He makes loud voice (*mahā-nādam* in *Sādhana* no. 266).

He is bright like a broken lump of collyrium (*bhinn-āñjana-mahā-kāyam* in *Sādhana* no. 265 and *bhinn-āñjana-sama-prabham* in *Sādhana* no. 266 and the *Tantra*) and is resplendent like the myriads of Sun (*āditya-koṭi-tejasam* in *Sādhana* nos. 265 and 266 and *āditya-koṭi-sannibham* in the *Tantra*). He is of blue complexion (*vikaṭa-nīlam* in *Sādhana* no. 264, *nīlam* in *Sādhana* nos. 266 and 267 and *nīlaḥ* in the

Nishpannayogāvalī) and is clad in blue garments (*nīla-vastr-āvṛita-tanum* in *Sādhana* no. 264, *nīla-svachchh-āṁśu-vasanam* in *Sādhana* no. 265). His hair rises upwards (*ūrddhva-keśam* in *Sādhana* no. 265, *ūrddhva-śikhā* in *Sādhana* no. 266, *nīla-piṅg-orddhva-baddha-keśam* in *Sādhana* no. 264 and *piṅgal-ordhva-baddha-keśaḥ* in the *Nishpannayogāvalī*). His eyes are round like the evening Sun (*sandhy-ārkam=iva vartulam* in *Sādhana* no. 265) and red (*rakta-chakshur-dvayam* in *Sādhana* no. 264, *kalp-ānala-jvalach-chakshuḥ* in *Sādhana* no. 265, *rakta-netratrayaḥ* in the *Nishpannayogāvalī*). His face shows terrible bare fangs (*daṁshṭrā-karāla-vadanam* in *Sādhana* nos. 265 and 266 and the *Tantra* and *daṁshṭrā-karāla-vaktraḥ* in the *Nishpannayogāvalī*). He laughs aloud (*aṭṭ-āṭṭahāsa-nādinam* in *Sādhana* no. 265, *aṭṭahāsam* in *Sādhana* no. 266 and the *Tantra*, *s-āṭṭahāsaḥ* in the *Nishpannayogāvalī*). The god is bejewelled with a crown of a garland of skulls (*kapāla-mālā-mukuṭam* in *Sādhana* nos. 265 and 266 and the *Tantra*, *pañcha-kapāl-ālaṅkṛita-mukuṭī* in the *Nishpannayogāvalī*). He is the lord of three worlds (*trailoky-ādhishṭhitam* in *Sādhana* no. 266 and *trailoky-ādhipatim* in *Sādhana* no. 265 and in the *Tantra*), is capable of destroying the three worlds (*trailokyam=api nāśanam* in *Sādhana* no. 266 and *trailokyasy=āpi nāśanam* in the *Tantra*).

Bhūtaḍāmara is decorated with eight serpents (*ashṭa-nāg-opaśobhitam* in *Sādhana* no. 264, *nāg-āshṭaka-vibhūshitam* in *Sādhana* nos. 265 and 266 and in the *Tantra*).

Sādhana no. 264 has described the eight *nāgas* in the following manner.

Karkkoṭaka of blue complexion is around the god's head; Takshaka of red complexion is around the neck; Nanda and Upananda of yellow colour serve as the ear-rings (*kuṇḍalas*); Ananta, white, as the sacred thread (*brahmasūtra*); Vāsuki, white, as the girdle (*kaṭisūtra*); Kulika of the colour of *pārāvata* (i.e. grey) as *keyūra* round the two arms joined in the *mudrā*, and Śaṅkhapāla, white, as *keyūra* around the other two arms, Padma and Mahāpadma of red colour as the *nūpuras.*[14]

The names and colour of the snakes, serving as ornaments, given in the *Nishpannayogāvalī* are identical with those in *Sādhana* no. 264. Here, however, the name and the colour of the *nāga* (Karkkoṭaka) round the head are not mentioned.

Sādhana no. 266 gives parallel indications for those concerning Ananta, Vāsuki, Padma, Mahāpadma, Nanda, Upananda and also Karkoṭaka. The last has been described as *kṛishṇa* (black). Kulika serves as a *valaya* round the left hand and Śaṅkhapāla, white, as the *valaya* round the other (i.e. right) hand. Takshaka of yellow colour forms the necklace and at the same time the *keyūras*.

Thus though the snakes are numbered in the texts as eight, they are in reality ten.[15] Nanda and Upananda form a pair, so also Padma and Mahāpadma.

In the *Sādhanas*, the *Nishpannayogāvalī* and the *Bhūtaḍāmara Tantra* Bhūtaḍāmara has been described as being four-armed. The principal hands are joined together in a special *mudrā.*[16] The following verse in *Sādhana* no. 264 defines this *mudrā.*

anāmikā-dvayaṁ veshṭya kuñchayet[17] *tarjjanī-dvayam* |[18]
kanishṭhāṁ madhyamāṁ ch=aiva jyeshṭh-āṅgushṭhena ch=ākramet ||

The translation as furnished by B. Bhattacharyya is: 'the two Anāmikās should be entwined, the two Tarjanīs slightly bent, while the middle and the last fingers should be pressed with the thumb.'[19]

The exact significance of this *mudrā*[20] which is unique cannot be determined. From the description in *Sādhana* no. 266 *esha mudrā-varaḥ śrīmān trailokya-rājya-sādhanam*[21] it can be inferred that this *mudrā* indicates lordship over the three worlds.

The second right hand of Bhūtaḍāmara holds a *vajra* (thunderbolt), while the left shows, according to *Sādhana* nos. 265 and 266 and the *Bhūtaḍāmara Tantra*, the raised *tarjanī* (index finger) and according to *Sādhana* no. 264 and the *Nishpannayogāvalī* the noose around the index finger (*sa-pāśa-tarjanī-dharaḥ*).

The *sādhanas*, the *Nishpannayogāvalī* and the *Tantra* describe Bhūtaḍāmara as standing in the *pratyālīḍha* attitude on Aparājita.

Aparājita appears to be Śiva, as is evident from his iconographical features described in *Sādhana* no. 264:

pañcha-kapāla-makuṭaṁ vāme triśūla-kapāla-dharaṁ dakshiṇe ḍamaru-karttrikā-dharaṁ kapila-jaṭā-mukuṭinaṁ trinetraṁ vyāghra-charmm-āmbaraṁ sitaṁ mahābhūt-ādhip-āparājitaṁ pratyālīḍha-pad-ākrāntaṁ[22] . . .

Thus (Bhūtaḍāmara) stands in the *pratyālīḍha* pose trampling under his feet Aparājita, who wears the *mukuṭa* having five skulls, has the crown of brown matted hair, is three-eyed and clad in tiger-skin, white in complexion and is the lord of Mahābhūtas. Aparājita holds with his right hands a *ḍamaru* (drum) and a *kartri* (chopper) and with the left a *triśūla* (trident) and a *kapāla* (skull-cup). The same attributes are prescribed for Maheśvara in the first circle around Bhūtaḍāmara in the *Nishpannayogāvalī*.

The *Nishpannayogāvalī* describes Aparājita in a similar manner attributing him some more adjectives.[23] His *jaṭā-mukuṭa* is ornamented with the crescent moon. He is bearded (*śmaśruka*) and fierce-looking (*raudra*) with terrible fangs displayed (*daṁshṭrā-karālin*), has a protuberant belly (*tundila*) and wears a sacred thread of a snake (*vyāḍa-yajñ-opavīta*).

None of the *Sādhanas* mentions the *kuleśa* Tathāgata from whom *Bhūtaḍāmara* has emanated. The *Nishpannayogāvalī* says at one place that the five Tathāgatas should be present on his crown (*pañcha-tathāgata-mukuṭī*).[24] However, it specifically names Akshobhya as the *kuleśa* of *Chakreśa*, i.e. Bhūtaḍāmara (*Chakreśasya kuleśo='kshobhayaḥ*).[25]

The *Bhūtaḍāmara Tantra* describes how Aparājita appeared under the feet of Bhūtaḍāmara. The first chapter of the *Tantra* opens with a description of Mahāvajradhara who at the request of Mahādeva recites a particular *mantra* for subduing the various kinds of ghosts and demons. Immediately destructive rays of light issue forth from the person of *Bhagavān* consuming all ghosts and demons. He later on utters the *mṛitasañjīvanī mantra* and the wind that comes out of his nose touches the dead bodies and they are revived and place themselves at the protection of Vajradhara, and Aparājita, their lord, also falls at his feet seeking his protection. The *bhagavān* makes them promise that they will render all possible help to the people of Jambudvīpa.[26]

In the *Bhūtaḍāmara-maṇḍala* of the *Nishpannayogāvalī* a number of Brāhmaṇical gods are found in the four concentric circles of the elaborate *maṇḍala.*[27]

In the first circle in different chambers there are eight deities in the eight quarters.

In the east chamber is Maheśvara on a bull. He is *ūrdhvaliṅga, kapālī*, of the colour of the ashes, three-eyed and four-armed; his matted hair is decorated with the crescent moon, the sacred thread being of a snake (*vyāḍa-yajñ-opavīta*). He holds with his right hands a *kartri* and a *ḍamaru* and with the left a *kapāla* and a *triśūla.*

In the south is Vishṇu on his Garuḍa. He is of blue (or black) complexion, decorated with a crown of jewels, holding with his right hands a *kamala* (lotus) and a *khaḍga* (sword) and in the left a *chakra* (wheel) and a *gadā* (club). The word *khaḍga* appears to be misreading for *śaṅkha.*

In the west is Brahmā on a swan. He is of white complexion, four-faced and holds in the two right hands an *aksha-mālā* (rosary) and a *chhatra-daṇḍa* (staff of an umbrella) and in the two left a *padma* (lotus) and a *kamaṇḍalu* (spouted water-pot).

In the north is Kārttikeya with three locks of hair (*trichīraḥ*) on a peacock; the god, of red colour, holds with his right hand a *chāmara* (fly-whisk) and with the left a *śakti* (spear).

In the Īśāna-corner (north-east) is Gaṇapati on a rat. He is white, elephand-faced, three-eyed and four-armed. He has the crescent moon on head-dress and holds with his right hands a *mūlaka* (radish) and a *paraśu* (battle-axe) and with the left a *triśūla* (trident) and a *kapāla* (skull-cup).

In the Agni-*koṇa* (south-east) is Āditya on the orb of the Sun. He is red and holds the disc of the Sun placed on the lotus with both his right and left hands.

In the Nairṛita corner (south-west) is Rāhu on the Sun and the Moon within a chariot. He is bright having reddish-blue colour. His tawny hair rises upwards, tawny eyes are burning and four fangs are displayed. He is bearded and has eyebrows. His hands, holding the Sun and the Moon, are joined in the *añjali-mudrā.*

In the Vāyu-*koṇa* (north-west) is Nandī on the Moon. He is yellow, dancing, with the crescent moon on the crown and wearing a sacred thread of snake (*vyāḍa-yajñ-opavīta*). He holds in his right and left hands a *ḍamaru* and a *triśūla* respectively.

The *Tantra* agrees with the *Nishpannayogāvalī* regarding the positions of Gaṇapati, Āditya (the Sun), Rāhu and Nandī (called Nandikeśvara). It, however, is silent about their *vāhanas* and attributes. The other four deities mentioned in the *Tantra* are: Mahādeva (in the south) on a bull, carrying a *śūla*, a *chāmara*, a bow and a *śakti*; Vishṇu (in the north) on his Garuḍa, bearing a conch, a wheel, a mace and a *chāmara*; Indra (in the west in place of Brahmā) on an elephant, holding a *chāmara*; and Kārttika (in the east) on a peacock, bearing a *chāmara.*[28]

In the second circle there are eight goddesses in the eight quarters. According to the *Nishpannayogāvalī*: in the east is Śrī of white complexion holding *padma-pushpa* (lotus flower) with palms in *añjali* kept near the chest; in the south is the dancing Tilottamā of red complexion holding *dhūpa-kaṭachchhū* (incense-burner); in the west is Śaśī of red complexion holding *dīpa* (lamp); in the north is Umā, of yellow complexion, dancing with arms spreading above the head like the snake-hood. In the Agni-*koṇa* is Ratnaśrī of red complexion holding *gandha* (scent); in the Nairṛita *koṇa* is Sarasvatī playing on a *vīṇā* (lute); in the Vāyu-*koṇa* is Surasundarī of blue (or black) complexion holding *ratnamālā* (garland of jewels) and in the Īśāna-*koṇa* is Vibhūti of yellow complexion, dancing and holding *tri-sūchika-vajr-āṅka* (three-pronged thunderbolt). They are all on the moon. All these deities are mentioned in the *Bhūtaḍāmara-Tantra.* However in the *Tantra* the name of the goddess in the Īśāna-*koṇa* is Viśālākshī instead of Vibhūti.[29] It may be noted that Vibhūti occurs in the south in the fourth circle in the *Nishpannayogāvalī*; consequently, Vibhūti should not be a goddess of the second circle. In fact C (Cambridge) manuscript of this text omits this name.

There is a set of Brāhmaṇical gods presiding over the eight quarters in the third circle. The *Nishpannayogāvalī* describes them as follows. In the east is Śakra (i.e. Indra) on his white Airāvata. He is yellow, wearing a crown decorated with jewels, shows the *abhaya-mudrā* with the right hand and holds a *vajra* (thunderbolt) with the left.

In the south is the pot-bellied Yama riding on a buffalo. He is of blue (or black) complexion, has brown eyes, eyebrows and beard and is draped in yellow cloth. He holds with his right hand a *daṇḍa* (staff) marked with a *kapāla* (skull-cup) and with the left a *pāśa* around the *tarjanī.*

In the west is Varuṇa riding on a serpent. He is white in complexion and has seven hoods. He shows with his right hand the *varada mudrā* and holds with the left a *nāga-pāśa* (noose of snake).

In the north is Kubera riding on a *yaksha.* He is of yellow complexion, corpulent, pot-bellied, wears a crown decorated with gems and holds with the right hand a *gadā* (mace) and with the left a *nakulī* (female mongoose).

In the Agni-corner is the pot-bellied and bearded Agni riding on a goat. He is of red complexion, wears a *yajñ-opavīta*, has three matted locks of hair, his tawny hair rising like flames. He shows with his right hands the *varada mudrā* and an *aksha-sūtra* (rosary) and with the left hands a *tridaṇḍaka* (three-pronged staff) and a *kamaṇḍalu.*

In the Nairṛita corner is Nairṛiti of black complexion, riding on a goblin. He holds with his right hand a *khaḍga* (sword) and with the left *māṁsapūrṇa-kapāla* (skull-cup filled with flesh). He has tawny eyebrows and beard.

In the Vāyu-*koṇa* is Vāta of blue complexion, riding on a deer. He is *trichīra* (with three locks of hair) and holds with his two hands *vātapuṭa* (cloth inflated with wind).

In the Īśāna-*koṇa* is Chandra of white colour riding on a swan. He exhibits the *varada mudrā* with his right hand and holds the disc of the Moon on a lily with the left. After the description of Chandra it is written *Īśānaś=cha Maheśvaravat* (normally Īśāna is the *dikpāla* of the Īśāna-*koṇa*). All these deities including Chandra occur in the third circle around Bhūtaḍāmara in the *Tantra.*[30]

In the fourth circle there is another set of eight goddesses. They are described in the *Nishpannayogāvalī* in the following manner. In the east is Siṁhadhvajadhāriṇī of white complexion holding the *siṁhadhvaja* (flag marked with a lion). In the south is Vibhūtī of red colour bearing an *aṅkuśa* (elephant-goad). In the west is Padmavatī of white complexion with a bow and an arrow (*dhanurvāṇa-hastā*). In the north is Surahāriṇī of red colour holding a flag marked with *chintāmaṇi* jewel (*chintāmaṇi-dhvaja*). In the Īśāna-*koṇa* is Varahāriṇī of yellow complexion having flowers in the palms, kept against the chest in the *añjali-mudrā.* In the Agni-*koṇa* is Ratneśvarī of yellow complexion carrying a *dhūpa-kaṭachchhū* (incense-burner). In the Nairṛita *koṇa* is Bhūshaṇā (Bhūshaṇī according to B manuscript of the *Nishpannayogāvalī*) of yellow complexion holding a *gandha-śaṅkha* (conch filled with scent) and in the Vāyu-*koṇa* is Jagatpālinī of yellow complexion holding a *dīpa-yashṭi* (lamp-stick or lamp-stand). Identical names of these eight goddesses are found in the *Bhūtaḍāmara Tantra.* The *Tantra*, however, mentions Siṁhadhvajadhāriṇī as Siṁhadhvajā, Padmavatī as Padmāvatī and Bhūshaṇā as Bhushiṇī.[31]

All the deities (*devatāḥ*), decked in ornaments and decorated clothes, are seated in the *sattva-paryaṅka* attitude on *viśva-padmas.*

Though in the *maṇḍalas* a number of Brāhmaṇical deities were fitted, they were placed in a subordinate position. So it can be assumed that Bhūtaḍāmara, according to the Buddhists, was superior to all these Brāhmaṇical deities.

This becomes more evident from the fifth *Kalpa* of the *Bhūtaḍāmara Tantra* where Vajrapāṇi gives a list of *Sādhanas* and detailed directions for the attainment of *siddhi* and for killing and subduing a number of gods such as Mahādeva, Nārāyaṇa, Brahmā, Śakra, Kumāra, Gaṇeśa, Bhairava, Nartteśvara, Mahākāla and others.[32] The *Sādhana* no. 264 begins with *Śakra-Brahma-Kuber-ādi-mada-vidhvaṁsa-kovidam*[33] which means that (Bhūtaḍāmara) can destroy the pride of Śakra, Brahmā, Kubera and others.[34] As has been noticed earlier, Aparājita, evidently a terrific form of Śiva, was under the feet of Bhūtaḍāmara.

From all these factors it appears that the Buddhists wanted to show their superiority to the adherents of Brāhmaṇical faith by the creation of this god. This does not necessarily mean 'that the Buddhists cherished a great hatred towards Hinduism and Hindu gods, and they took particular pleasure in defaming Hindu gods both in writing and in art.'[35]

It was not great hatred but a sense of insecurity that made a certain section of Buddhist sectarians defame the Brāhmaṇical gods during this period. They desired to attract the votaries by proving that the Buddhist gods were superior to the Brāhmaṇical gods.

III

A

A small image of Bhūtaḍāmara (Pl. 29.1) was discovered at Nalanda (Site 11) during the year 1933-34[36] and is now preserved in the Indian Museum, Calcutta (Acc. No. 9451/A2465). Made of brownish stone, the image is 10·7 cm. high (back side), 11 cm. high (front side) and 6·6 cm. wide. Of excellent workmanship, the image, is in the best state of preservation. It is ascribed to the tenth-eleventh century A.D.

Bhūtaḍāmara is single-faced and four-armed. His face shows frowning eyebrows, teeth and fangs and widely-open bulging eyes. A few locks of hair fall on his shoulders.

He is draped in a short *antarīya* held by a girdle with a floral central piece and a folded *uttarīya* encircling the thighs, with a knot, from which hang down the two ends by his left side.

He is adorned with plain *nūpuras*, *sarpa-nūpuras*, plain *valayas*, *sarpa-valayas*, armlets of strings with a projecting floral clasp at the centre, a plain *hāra*, a beaded *hāra* with an ornate central piece, an *upavīta* of two strings (one beaded and the other plain), *sarpa-kuṇḍalas* and a conical *mukuṭa*, possibly with a row of skulls at the base, above which are a pair of snakes in the centre and a flower at either side; below the top (resembling a *maṇi*) of the *mukuṭa* is a garland of intertwining strings (beaded and plain), below which is possibly a row of flowers.

The two principal hands of the deity are joined against the chest, with palms folded and the *tarjanīs* touching each other, possibly in the *bhūtaḍāmara-mudrā.* The upper right hand carries a *vajra* and the corresponding left shows the *tarjanī-mudrā.*

He stands in the *pratyālīḍha* posture trampling under his feet the figure of Aparājita who is lying with legs slightly folded on a *viśva-padma* which is resting on a *tri-ratha* pedestal. The right leg of Bhūtaḍāmara is placed on the right leg of Aparājita and the left on the right side of his head.

The single-faced, three-eyed, four-armed, (slightly) pot-bellied and bearded Aparājita is clad in a short tiger-skin and decked in *valayas*, an *upavīta*, a *hāra* with circular pendants hanging from a plain string and a *jaṭāmukuṭa*. One of his right hands resting near the chest carries a rosary[37] and the other a *ḍamaru*. With the upper left hand he holds a *kapāla* and with the lower a *triśūla*.

The back-slab with an inconspicuously-pointed top is filled with flames which are supposed to emanate from the body of Bhūtaḍāmara.

B

In Tibetan Lamaism Bhūtaḍāmara has been regarded as one of the forms of Vajrapāṇi.[38] According to Antoinette K. Gordon, Bhūtaḍāmaravajrapāṇi has a single head, four arms and three eyes, steps to right on a person lying on snakes, has a *vajra* and snakes in hair and a skull-crown. His original hands are in the *bhūtaḍāmara-mudrā*, his uplifted right hand holds a *vajra* while the corresponding left hand is in the *tarjanī-mudrā*.[39] This description thus agrees broadly with the iconographic features of Bhūtaḍāmara described in the *Sādhanamālā*, the *Nishpannayogāvalī* and the *Bhūtaḍāmara Tantra*. It, however, neither names nor describes the person lying on snakes.

Gordon has published a bronze image (6 inches high)[40] of Bhūtaḍāmaravajrapāṇi (Phyag-*r*dor *h*byuṅ-po-*h*dul-byed) in her book. The pot-bellied god has three eyes. The two normal eyes are round and his facial expression is very angry. He is bejewelled with anklets (of snake), a girdle, *valayas*, a long *hāra* (possibly of snake), a short *hāra*, armlets (possibly of snake), ear-ornaments and a high *mukuṭa* with skulls. Two of his hands are joined near his chest in the *bhūtaḍāmara-mudrā*. The second right hand, upraised, holds a *vajra* and the second left, with the *tarjanī* displayed, a *pāśa*. He stands in the *pratyālīḍha* posture on a male figure lying on a single-petalled lotus.

C

An inscribed bronze image of Bhūtaḍāmara has been illustrated by W.E. Clark.[41] The image is three-eyed; the two normal eyes are round. The fierce-looking deity, slightly pot-bellied, has displayed teeth and fangs in angry laughter.

The god is adorned with anklets (possibly of snakes), a girdle with jingle-pendants, bangles, armlets, a short *hāra*, a long *hāra* (or *upavīta*), and ear-ornaments. His flame-like hair rises upwards and he wears a short crown, capped by a row of human skulls. He is draped in a short cloth and a long folded scarf which encircling behind his neck and forearms falls on the sides.

The two principal hands of Bhūtaḍāmara are joined near the chest in his special *mudrā.* The raised upper right hand holds a thunderbolt and the corresponding left hand shows the *tarjanī-mudrā.*

Bhūtaḍāmara is standing in the *pratyālīḍha* attitude on the back of a male figure who is lying down on the pericarp (bearing the Chinese label) of a single-petalled lotus. The male, presumably Aparājita, is bejewelled and four-armed. The attributes in his hands are not clear in the illustrated photograph.

D

Walter Eugene Clark in his *Two Lamaistic Pantheons* also furnished illustrations of 360 figures of divinities from the manuscript entitled *Chu Fo P'u-sa Shêng Hsiang Tsan* (now in the National Library of Beijing) ascribed to Chang Chia Hutuktu in the time of the emperor Ch'ien-lung (A.D. 1736-96); the names of the divinities are written in Tibetan, Chinese, Mongolian and Manchu. The figure of the four-armed Bhūtaḍāmara-Vajrapāṇi is illustrated as No. 71 on p. 242. With locks of hair rising upwards, the bejewelled fierce-looking deity is standing in *pratyālīḍha* on Aparājita; at the base of his hair is a band with skulls. The two principal hands are near the chest in a *mudrā*; the raised upper right hand carries a *vajra*; the attribute in the corresponding left is uncertain. Behind the deity are flames.

E

A Tibetan bronze image (Pl. 29.2) of Bhūtaḍāmara belonging to the collection of Oukhtomsky is preserved in the Hermitage Museum (No. Y-1059), St. Petersburg. It is illustrated by Marie-Thérèse de Mallmann.[42] The pot-bellied three-eyed and four-armed god is extremely fierce-looking. Apart from the loin-cloth, he wears a folded scarf which encirling his head in the form of a halo dangles by the sides. He is adorned with *sarpa-nūpuras*, *sarpa-valayas*, *sarpa-keyūras*, a long *sarpa-hāra*, a *hāra*-like string with hanging heads (eight visible in the published photograph), possibly a necklace, *kuṇḍalas* and a short cable-like (snake ?) *mukuṭa* capped by a row of five skulls rearing against the rising hair. With his normal pair of hands in his characteristic *mudrā*, he wields a *vajra* with his upper right hand, the corresponding left showing *tarjanī* and holding a *pāśa.* He is in *pratyālīḍha* posture with his right foot planted on the back side of the raised head of Aparājita, the left foot being on the back side of his legs. The bejewelled Aparājita, lying on his chest on the pericarp of a single-petalled lotus above a moulded stand, is four-armed. One of his right hands holds a *kartri* in front of his head. Of his left hands, one holds a trident, the object (skull-cup ?) in the other being rather indistinct.

F

A drawing of the *Bhūtaḍāmara-maṇḍala* has been published by Raghu Vira and Lokesh Chandra.[43]

The central deity of the *maṇḍala* is the three-eyed Bhūtaḍāmara (Ḥbyuṅ po ḥdul byed). The two hands are joined near the chest. But the *mudrā* is indiscernible. The upper right hand holds a *pāśa* and the upper left hand a *triśūla*. His hair are rising upwards, and he looks terrible. He stands in the *pratyālīḍha* attitude. There is no figure under the feet. In this respect and also in respect of the attributes held in the upper two hands the image differs from the *dhyāna* of Bhūtaḍāmara.

According to Raghu Vira and Lokesh Chandra,[44] Bhūtaḍāmara is encircled by Maheśvara (Dbaṅ phyug chhen po), Vishṇu (Khyab ḥjug), Brahmā (Tshaṅs pa) and Kārttikeya (Smin drug gi bu) in the cardinal directions (east, south, west and north) and Gaṇapati (Tshogs bdag), Āditya (Ñi ma), Rāhu (Sgra gchan), and Nandī (Dgaḥ byed dbaṅ phyug) in the intermediate directions (north-east, south-east, south-west and north-west). In the second circle (*dvitīya puṭa*) there are eight goddesses: Śrī (Dpal mo), Tilottamā (Thig le mchhog ma), Śaśī (Zla ba mo), Umā (Dkaḥ zlog ma), Ratnaśrī (Rin chhen dpal mo), Sarasvatī (Dbyaṅs chan ma), Surasundarī (Lha mdzes ma) and Vibhūtī (Dbaṅ po ḥbyor ma).

In the third circle (*tritīya puṭa*) there are eight gods, seven of whom preside over the directions: Śakra (Brgya byin), Yama (Gśin rje), Varuṇa (Chhu lha), Kubera (Lus ṅan po), Agni (Me lha), Nairṛiti (Srin po), Vāta (Rluṅ lha) and Chandra (Zla ba).

There are eight goddesses in the fourth circle (*chaturtha puṭa*): Siṁhadhvajadhāriṇī (Seṅ geḥi rgyal mtshan ḥdzin ma), Vibhūtī (Rnam par rgyal ma), Padmavatī (Padma ldan ma chhen mo), Surāhāriṇī (Chhaṅ ḥphrog ma), Varahāriṇī (Mchhog ḥphrog ma), Ratneśvarī (Rin chhen dbaṅ phyug ma), Bhūshaṇā (Rgyan ma) and Jagatpālinī (Ḥgro skyoṅ ma).

The names of these deities, their *vāhanas*, directions and the emblems in their hands are mainly in accordance with the *Nishpannayogāvalī*. Sometimes the *mudrās* depicted by their palms are different. Thus the *varada mudrā* shown by Agni, Varuṇa and Chandra in the third circle is akin to the *abhaya-mudrā*.

Notes and references

1. Benoytosh Bhattacharya (ed.), *Sādhanamālā*, Vol. II (Baroda, 1968), *Sādhana* nos. 264, 265, 266 and 267, pp. 512-528.
2. Benoytosh Bhattacharyya (ed.), *Nispannayogāvalī* (Baroda, 1949), pp. 72-74.

3. Benoytosh Bhattacharyya, 'The Cult of Bhūtaḍāmara'. This paper, which was read before the section of Anthropology, Mythology, Folk-lore and Religion of the Sixth Session of the All India Oriental Conference held at Patna in December, 1930, was published in *Proceedings and Transactions of the Sixth All India Oriental Conference, Patna* (Patna, 1933) (henceforth referred to as *PTSAIOC*), pp. 349-370. The same paper was published in *Man in India*, Vol. XI, April-June, 1931, No. 2, pp. 83-115.
4. Benoytosh Bhattacharyya, 'The Cult of Bhūtaḍāmara', *PTSAIOC*, pp. 356-57. According to Bhattacharyya, 'The Buddhist manuscript (Acc. No. 13247) is a recent copy of some older manuscript of the Tantra as found in Nepal very probably in the Durbar Library.' *Ibid.*, p. 356.
5. M. Monier-Williams, *A Sanskrit-English Dictionary* (Oxford, 1899), p. 430.
6. Raja Radha Kanta Deva, *Śabdakalpadrumaḥ*, Part Two (Calcutta, 1808), p. 573.
7. Benoytosh Bhattacharyya, 'The Cult of Bhūtaḍāmara', *Man in India*, Vol. XI, 1931, p. 91.
8. *Sādhanamālā*, Vol. II, p. 520.
9. Benoytosh Bhattacharyya, 'The Cult of Bhūtaḍāmara', *PTSAIOC*, p. 354.
10. *Sādhanamālā*, Vol. II, p. 514.
11. *Ibid.*, p. 524.
12. *Ibid.*, p. CXX.
13. *Ibid.*, pp. CXX-XXI; Phanindranath Bose, *Indian Teachers of Buddhist Universities* (Madras, 1923), pp. 40-45, p. 158; B. Bhattacharyya, 'The Cult of Bhūtaḍāmara', *PTSAIOC*, pp. 352-53.
14. *Sādhanamālā*, Vol. II, p. 514.
15. Marie-Thérèse de Mallmann, *Introduction à l'iconographie du Tāntrisme Bouddhique* (Paris, 1975), p. 122.
16. *Sādhanamālā*, Vol. II, pp. 514, 516, 521, 527; *Niṣpannayogāvalī*, p. 72.
17. *Veshty=ākuñchayet=tarjanī-dvayam* in the *Niṣpannayogāvalī*.
18. *Tarjjanī-dvayaṁ kuñchayet* in *Sādhana* nos. 265, 266 and 267.
19. Benoytosh Bhattacharyya, 'The Cult of Bhūtaḍāmara', *PTSAIOC*, pp. 367-68.
20. Known as *Bhūtaḍāmara-mudrā* or *ḍāmara-mudrā*. The *mudrā* has been described by Antoinette K. Gordon in *The Iconography of Tibetan Lamaism* (New york, 1958), p. 20, Illustration, p. 21.
21. *Sādhanamālā*, Vol. II, p. 521; *Sādhana* no. 265 says, *eshā mudrā varā śreshṭhā trailokyasādhanī parā, ibid.*, p. 516.
22. *Ibid.*, p. 513.
23. *Niṣpannayogāvalī*, p. 72.
24. *Ibid.*, p. 72.
25. *Ibid.*, p. 74.
26. Benoytosh Bhattacharyya, 'The Cult of Bhūtaḍāmara', *PTSAIOC*, pp. 357-58.
27. *Niṣpannayogāvalī*, pp. 72-74.
28. Benoytosh Bhattacharyya, 'The Cult of Bhūtaḍāmara', *PTSAIOC*, p. 368.
29. *Ibid.*, pp. 368-69.
30. *Ibid.*, p. 369.
31. *Ibid.*, p. 369.
32. *Ibid.*, p. 361.
33. *Sādhanamālā*, Vol. II, p. 512.
34. Benoytosh Bhattacharyya, *An Introduction to Buddhist Esoterism* (Baroda, 1931), p. 117.
35. Benoytosh Bhattacharyya, 'The Cult of Bhūtaḍāmara', *PTSAIOC*, p. 366.

36. *ASIAR 1930-34*, Part Two (Delhi, 1936), p. 278, Plate CXLI, 15; G.C. Chandra identified the image with Trailokyavijaya. Bhagwant Sahai accepted this identification in *Iconography of Minor Hindu and Buddhist Deities* (New Delhi, 1975), p. 232. The image has rightly been described by S.K. Saraswati as Bhūtaḍāmara, *Tantrayāna Art—an Album* (Calcutta, 1977), p. LXIV, Ill. 177.
37. S.K. Saraswati has described the emblem as 'not visible, perhaps *kartṛi*', Saraswati, *op. cit.*, p. LXIV.
38. Antoinette K. Gordon, *The Iconography of Tibetan Lamaism* (New york, 1958), p. 63.
39. *Ibid.*
40. *Ibid.*, Plate facing p. 64.
41. Walter Eugene Clark, *Two Lamaistic Pantheons* (Reprint, New York, 1965), p. 151, Illustrated Photograph No. 5 M 4; the label for this image is given 'Kṛṣṇa-Vajravidāraṇa (Buddha)'. This image forms part of a unique collection of bronze images housed in the Pao-hsiang Lou, a Lama temple situated in the garden of the Tz'ŭ-ning palace in the Forbidden City at Peiping (Beijing), China. The images bear inscriptions (labels) in Chinese characters of the time of the emperor Ch'ien-lung (A.D. 1736-96) and are dated in the 18th century A.D. Marie-Thérèse de Mallmann, in her book entitled *Introduction à l'iconographie du Tântrisme Bouddhique* (Paris, 1975), p. 123, has rightly pointed out that Ill. No. 5 M 4 corresponds well to the description of Bhūtaḍāmara but is labelled Krishṇa-Vajravidāraṇa (Buddha) and suggested that this label probably exchanged with that of No. 5 M 7 (Illustrated photograph on p. 152) called Bhūtaḍāmara-Vajrapāṇi (Buddha) who has, however, only two hands and is accompanied by animals.
42. Marie-Thérèse de Mallmann, *op. cit.*, p. 123, Pl. XVI, 2.
43. Raghu Vira and Lokesh Chandra, *A New Tibeto-Mongol Pantheon*, Part 12 (New Delhi, 1967), Pl. 23.

30

Iconometric practice in a series of 18th century Tibetan *thangkas*,[1] illustrative of the *Avadānakalpalatā*

Marianne Yaldiz

A. Introduction

Our knowledge of the Indian science of proportionate measurement or iconometry may be traced back almost exclusively to the pertinent Sanskrit literature—the *Śilpaśāstras* or the textbooks of architecture, arts and crafts. Besides, several Buddhist works dealing with the theory of proportions have been handed down to us as well.

Already in the oldest sources we find the system of proportions fully developed. The later texts show no appreciable changes either in the system or in the proportions. The system is so perfect that even the smallest measurements of a body are specified exactly. Although the textbooks on iconometry are in reality the works of writers, they are of course not used by them, but by the artists in general. So does iconometry not confine itself only to the exposition of a system of proportions, but covers their interpretation as well. From that ensue unavoidable difficulties in the study of the Indian theory of measurements. It is only in a few cases possible to attribute an Indian textbook on iconometry to a definite epoch or a definite trend of style. Moreover, in the early Indian art there are only a few artists known, most of them remaining hidden behind anonymity.

B. Literary sources on iconometry[2]

1. THE *ŚILPAŚĀSTRAS*

The *Śilpaśāstras* are the works on architecture, arts and crafts. One of the most famous and well-treated is the *Mānasāra.* Only four of its eighty-six chapters deal with the theory of proportions, the remaining ones with the science of architecture, sculpture and iconography. According to its form and contents the *Mānasāra* is a classical example of an Indian *Śilpaśāstra.* Very little, however, is known to us about its author or its date of composition.

Another important work in this field is the *Śilparatna* of Śrīkumāra. It had been written in Kerala and dates back to the second half of the 16th century. One part of it is concerned with architecture and painting, the other one with the theories of the proportions of the sculptures.

The third one is the *Kāśyapaśilpa* ascribed to the mythical seer Kāśyapa. Eight of its chapters are concerned with iconometry.

The *Samarāṅganasūtradhāra*, a work of King Bhoja who reigned in Malwa from A.D. 1010 to 1055, deals with iconometry only in one chapter.

The *Aparājitapṛichchhā*, which was composed in the 12th or 13th century, too, deals with the theories of measurement in a very short space. Indian architect Sūtradhāra Maṇḍana is similarly concise in dealing with the canons of proportions in both his iconographical works, *Devatāmūrtiprakaraṇa* and *Rūpamaṇḍana.* A similar text is the *Śilpaprakāśa* of Rāmachandra Kaulāchāra from Orissa which is dated between 9th and 12th century.

2. THE ENCYCLOPAEDIAS

Already in the 6th century A.D. the knowledge of the theory of proportions constituted a rather essential part in the Indian learning, as can be inferred from the *Bṛihatsaṁhitā*, the big encyclopaedic work of the astrologer Varāhamihira who has dedicated a whole chapter on iconometry. The *Śukranīti* and the *Mānasollāsa* contain references to the measurements as well, besides accounts on fine arts.

3. THE BRĀHMAṆICAL RELIGIOUS LITERATURE

The *Purāṇas*, above all, supply us with important materials on the Indian theory of proportions. Thus chapters on iconometry are to be found in the *Agni-purāṇa*, the *Matsya-purāṇa* and the *Bhavishya-purāṇa.* The *Chitrasūtra* of the *Vishṇudharmottara-purāṇa*, the oldest manual preserved on painting, dated back most probably to the Gupta period, is likewise a very important source for the theory of proportions.

Other informations on iconometry are supplied by the *Āgamas*, the textbooks of rituals and laws of the Śaiva and Vaishṇava sects.[3]

Finally, two *tāntrik* works, traditionally followed in Nepal, are to be mentioned—the *Brahmayāmala-tantra* and the *Piṅgalamata.*

4. THE BUDDHIST ICONOMETRICAL TEXTS

Probably the oldest texts on iconometry is the *Chitralakshaṇa*,[4] which is available in Tibetan translation only. The Sanskrit original was lost at a rather early point of time and the only version that survived was the one which became incorporated in the religious canon of the Tibetans, the *bStan-'gyur*, in the medieval period. It is not difficult to recognize the importance of this early text on iconometry not only in connection with the art of India but also with that of the neighbouring countries like Tibet and China. The *Chitralakshaṇa* is a text on painting, if we take the Sanskrit word '*chitra*' exclusively to mean painting. Yet the word '*chitra*' could also be interpreted as 'image', 'idol', if we disregard the fact that the Tibetan *bStan-'gyur* also contains other texts including the *Pratimālakshaṇa* which treats with the production of images. This fact could be taken to interpret the *Chitralakshaṇa* then as a text devoted to painting, while the *Pratimālakshaṇa* is its counterpart in sculpture. Though the text contains instructions on the formation of single parts of the body, it is not a complete textbook on painting and not specifically Buddhist, but used by Brāhmaṇical and Jaina artists likewise.

If the *Chitralakshaṇa* is of non-Buddhist origin, one has to face the problem of how this work came into Buddhist hands and came to be a part of the Tibetan religious canon. The Tibetan translation suggests that the Indian Buddhist people must have adopted the essay and used it for their own purposes; it suggests further that they did not have proper textbooks of their own, because this is the only work of its kind found in the *bStan-'gyur*, and as yet we have no knowledge of any purely Buddhist work on painting.

Were it possible to precisely ascertain the time of the composition of the *Chitralakshaṇa* we might have been in a position to determine firmly the particular Buddhist persuasion, sect or school which had adopted this non-Buddhist manual as its own. But the work contains unfortunately no colophon, no name of author or place, and we are left only with internal evidence with which to surmise that the work can be ascribed to a relatively high degree of antiquity.

C. The system of Indian iconometry

The Indian theory of proportions uses a simple module system for the determination of the measurements of the body. Hereby the length of the face up to the hairline serves as standard measurement (module). This module fits into the length of the body nine times (total height: 9 1/2 modules). Such a big module needs to be divided into smaller sub-units:
1 module = 1 *tāla* (length of hand or face)
1 *tāla* = 12 *aṅgulas* (breadth of fingers)
1 *aṅgula* = 8 *yavas* (corns)

D. Origin and system of Tibetan iconometry

In the countries influenced by the Indian culture, the Indian iconometry has also asserted itself, as in Tibet and South-east Asia. Tibet's theory of proportions is mainly based upon four texts from the Buddhist canon: the *Kālachakra* and *Saṁvara Tantras* from the *Tantra* section of the *bKa'-'gyur* and the above mentioned *Chitralakshaṇa* and the *Pratimālakshaṇa* from the *bStan-'gyur*. Besides many renowned Tibetan scholars wrote iconometrical treatises that made significant contributions to Tibet's developing artistic heritage. Those treatises should enable the artists to produce an icon which shows the ideals of perfect beauty. Thus 'beauty' is not a term of an individual definition, but a description of the most perfect being. This perfection originates from a uniform balance and comprehensive symmetry of all parts of its body and expresses the harmonious interrelations of each part to the whole. The Tibetan theory of proportions knows about a dozen iconometrical groups, yet there is no concordance on their exact number, but according to the texts there exist two units of measurement: one big (*cha chen*) and one small (*cha chung*).

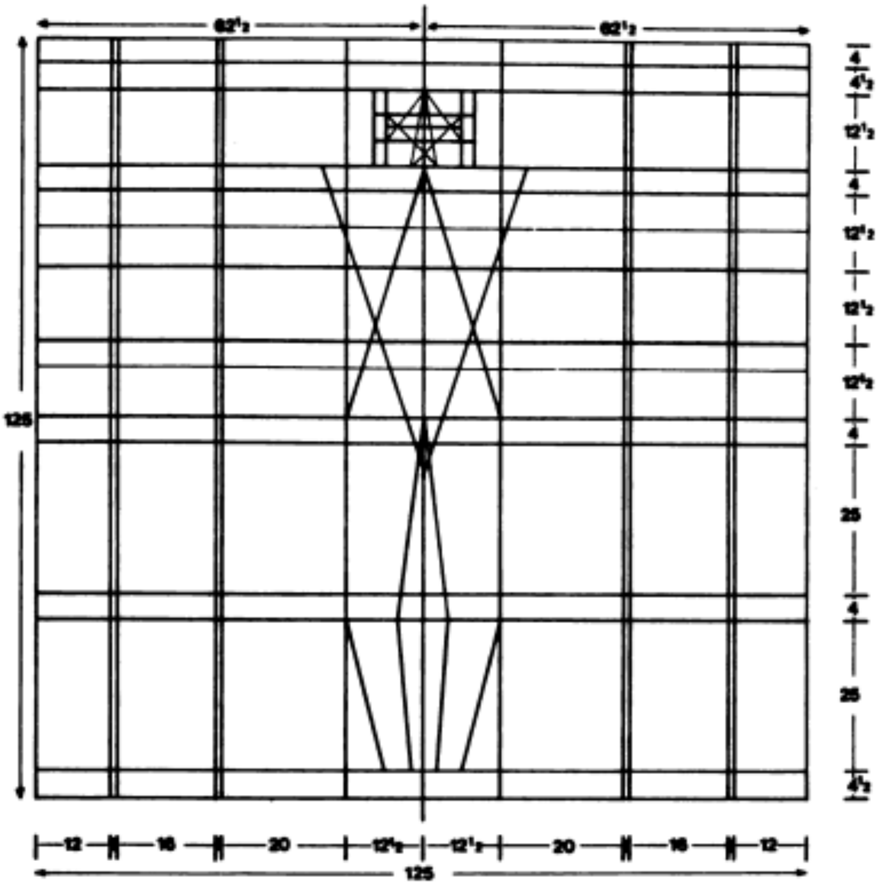

Fig. 1. Proportions of a standing Buddha (copyright: D.P. & J.A. Jackson, *Tibetan Thangka Painting*, p. 54, Class 1)

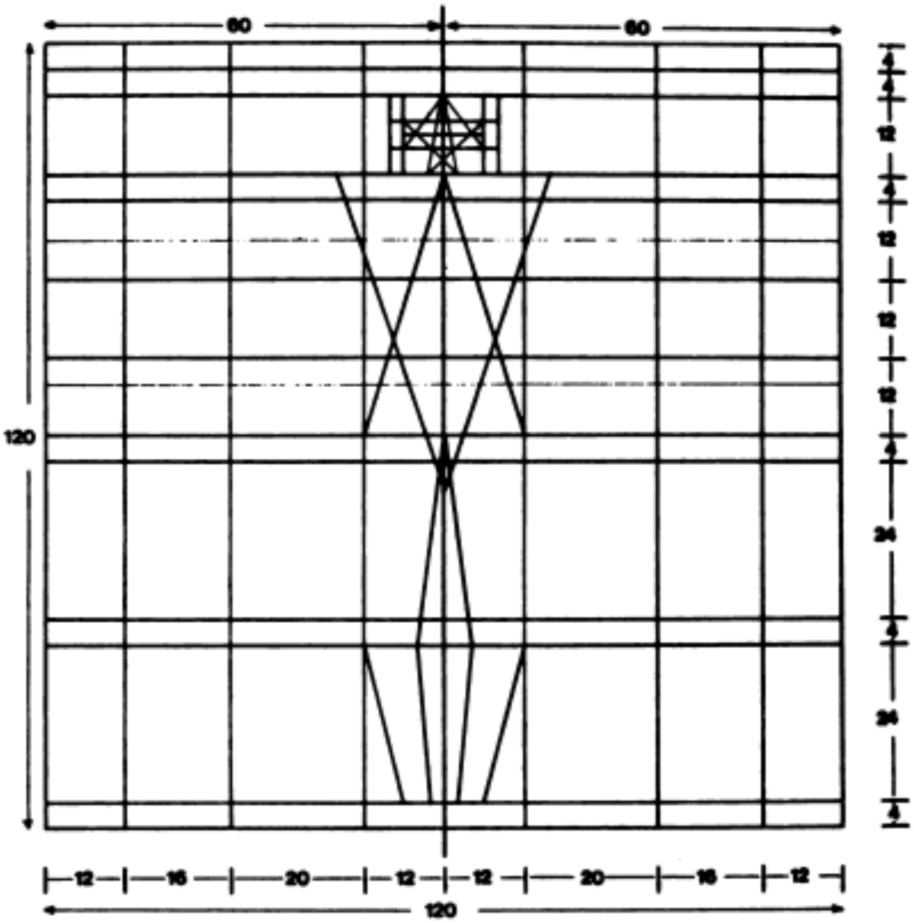

Fig. 2. Proportions of a standing Bodhisattva (copyright: D.P. & J.A. Jackson, *Tibetan Thangka Painting*, p. 54, Class 2)

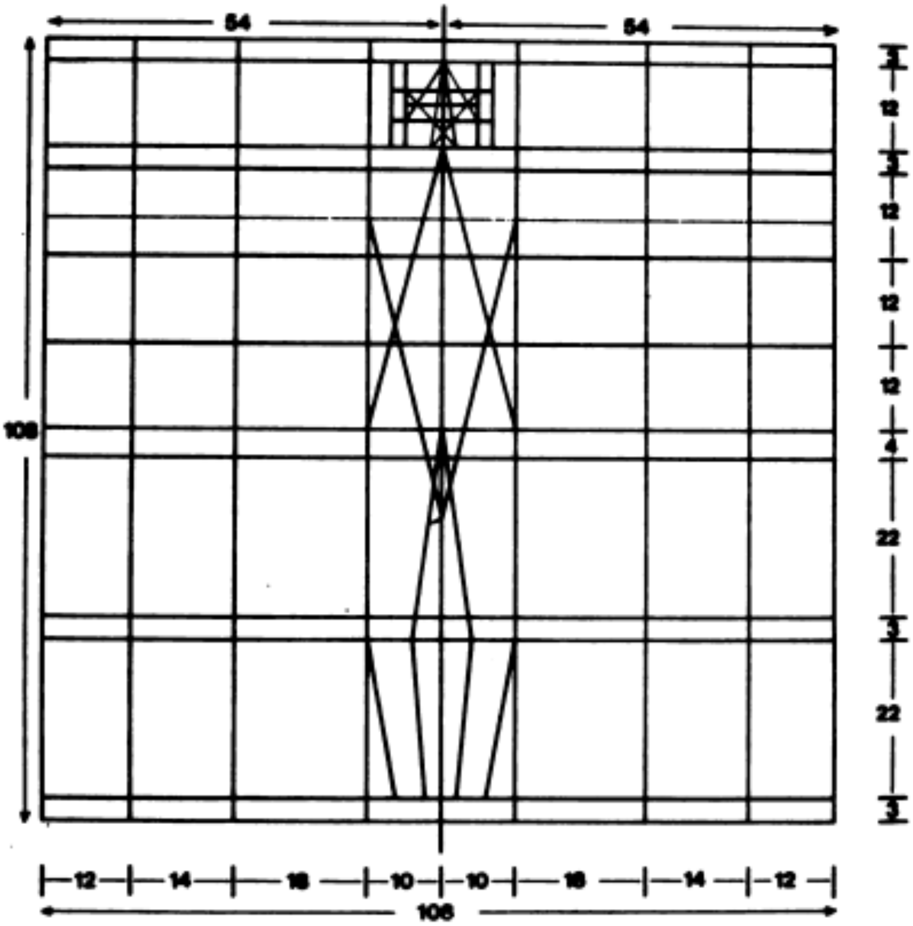

Fig. 3. Proportions of a standing goddess (copyright: D.P. & J.A. Jackson, *Tibetan Thangka Painting*, p. 54, Class 3)

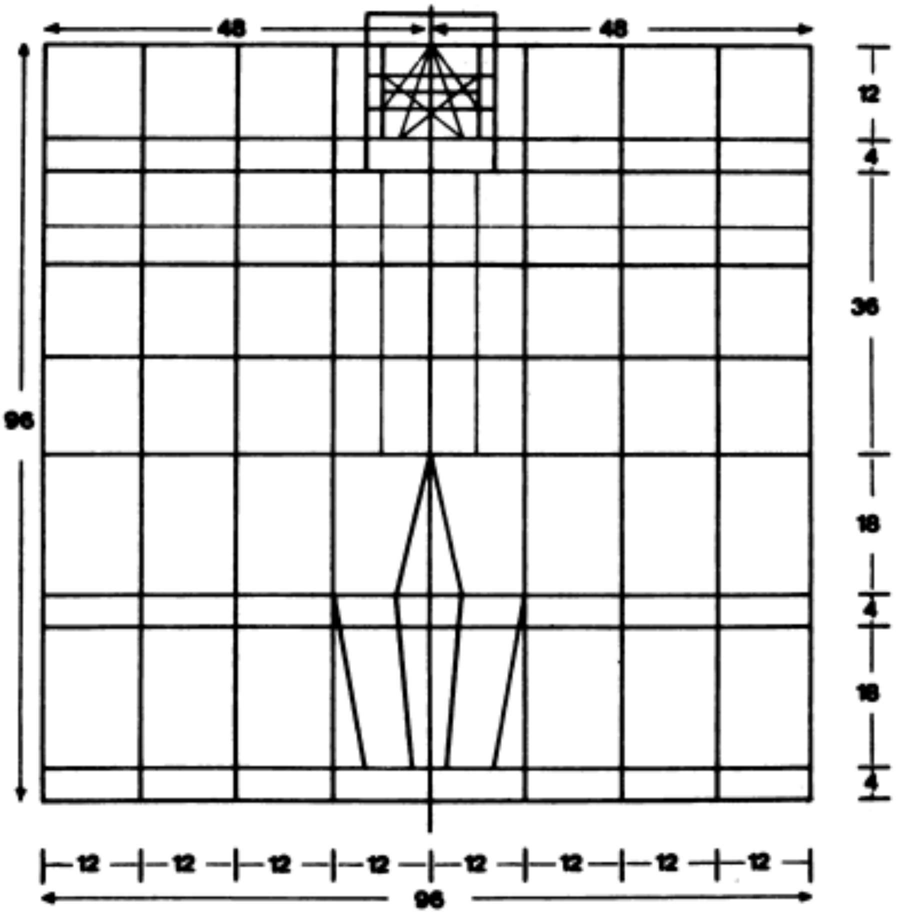

Fig. 4. Proportions of a human being (copyright: D.P. & J.A. Jackson, *Tibetan Thangka Painting*, p. 55, Class 6)

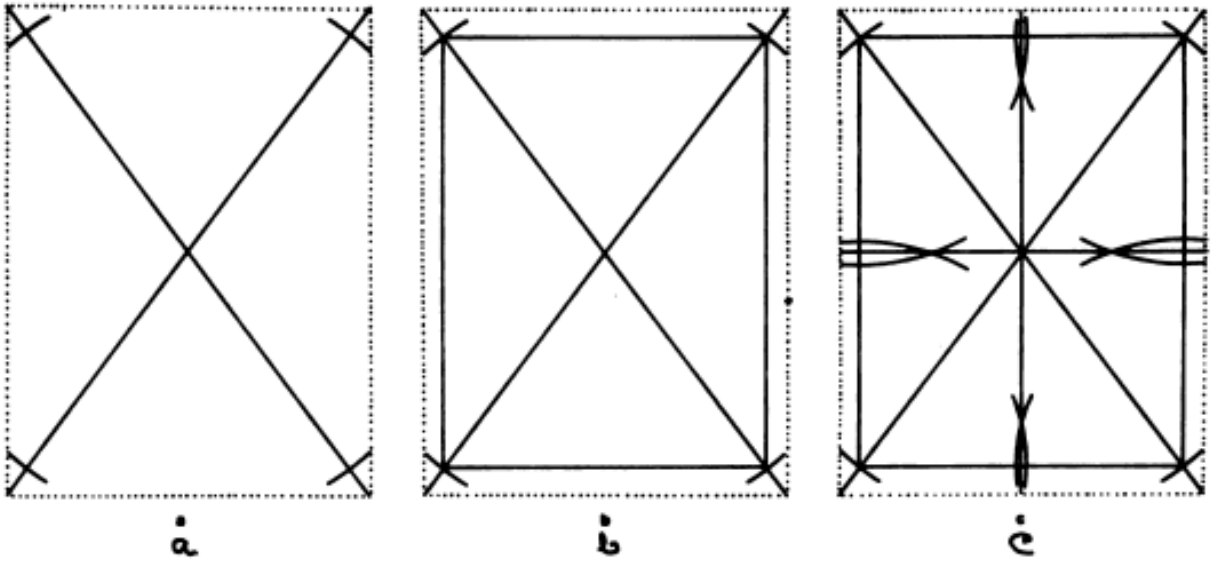

Fig. 5. Establishment of the outer borders and the vertical and horizontal axes (copyright: D.P. and J.A. Jackson, *Tibetan Thangka Painting*, p. 47)

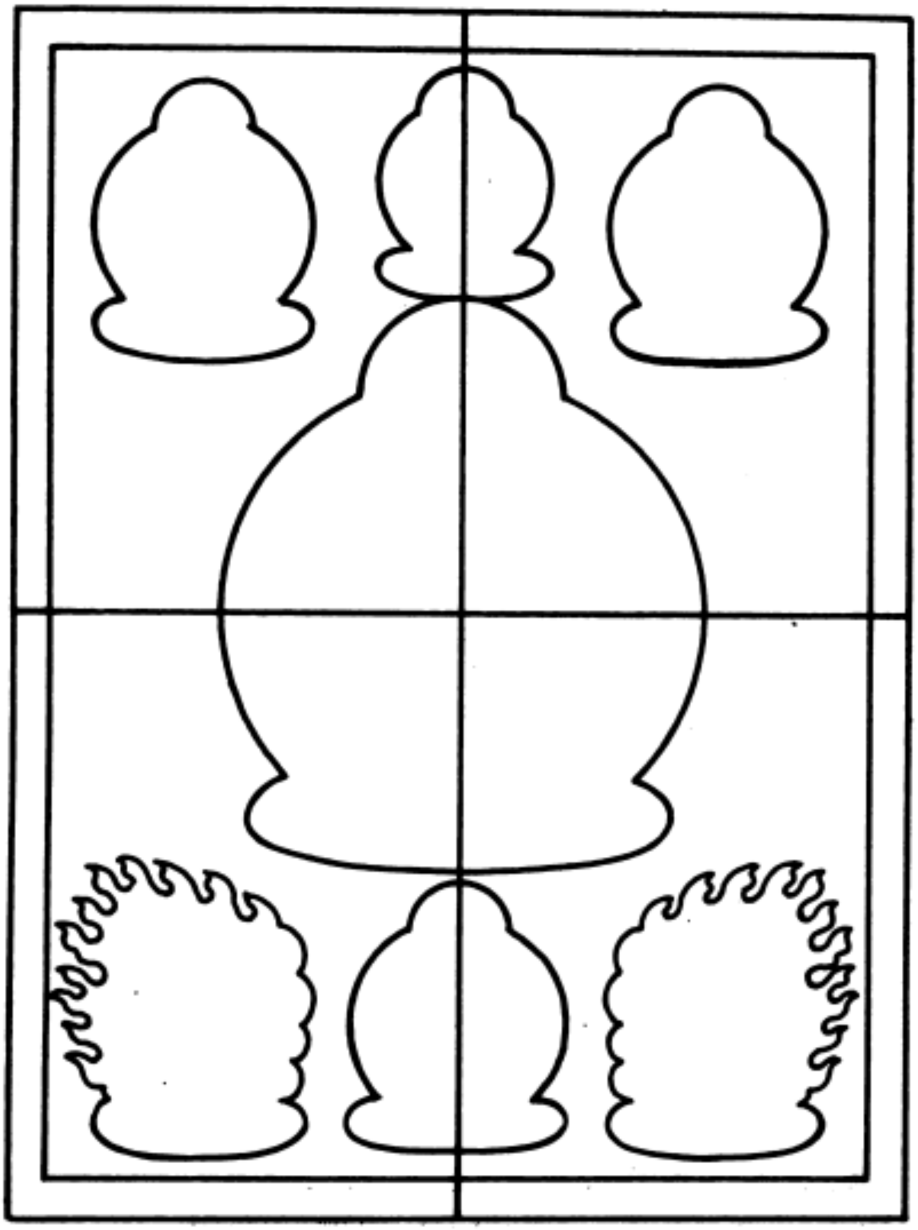

Fig. 6. Example of the division of space (copyright: D.P. & J.A. Jackson, *Tibetan Thangka Painting*, p. 48)

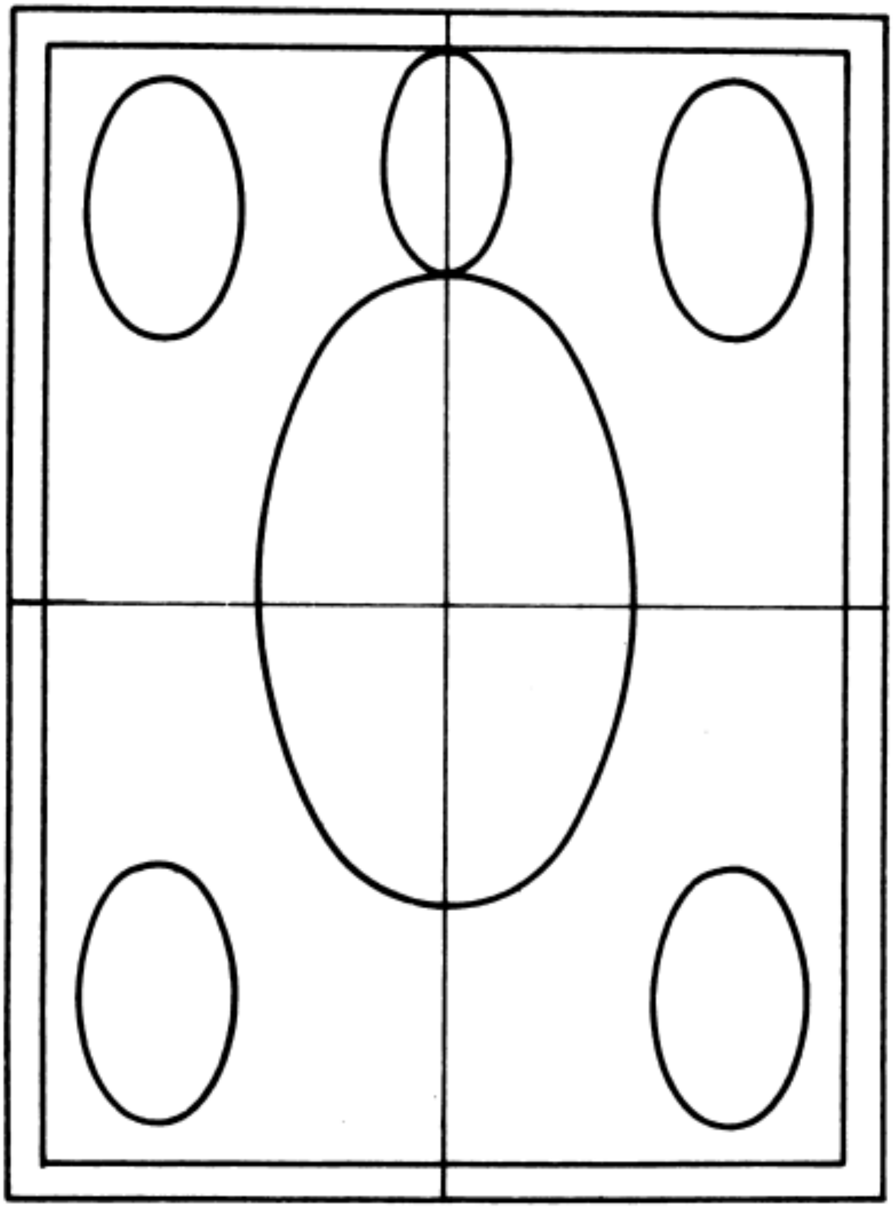

Fig. 7. Preliminary composition of the figures (copyright: D.P. & J.A. Jackson, *Tibetan Thangka Painting*, p. 70)

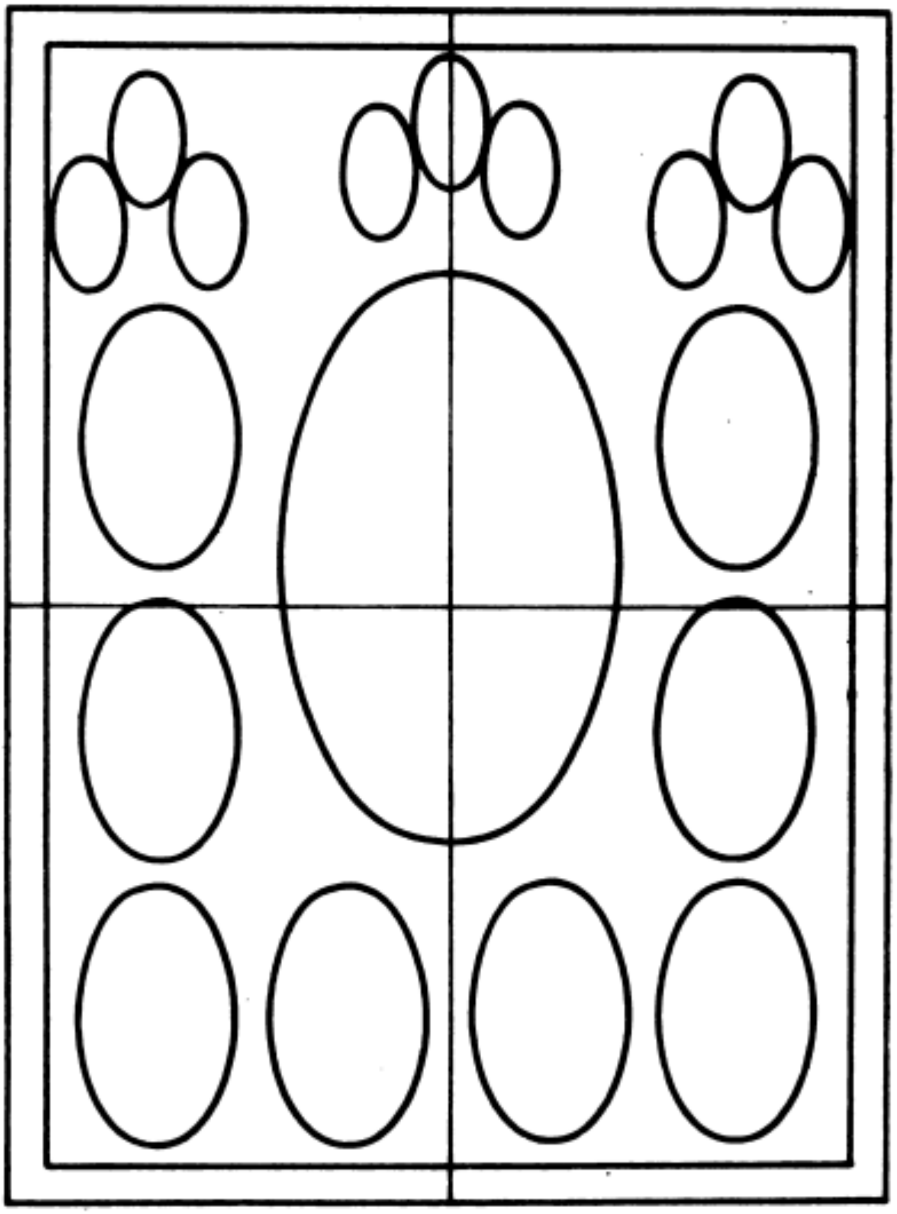

Fig. 8. Preliminary composition of the figures (copyright: D.P. & I.A. Jackson, *Tibetan Thangka Painting*, p. 70)

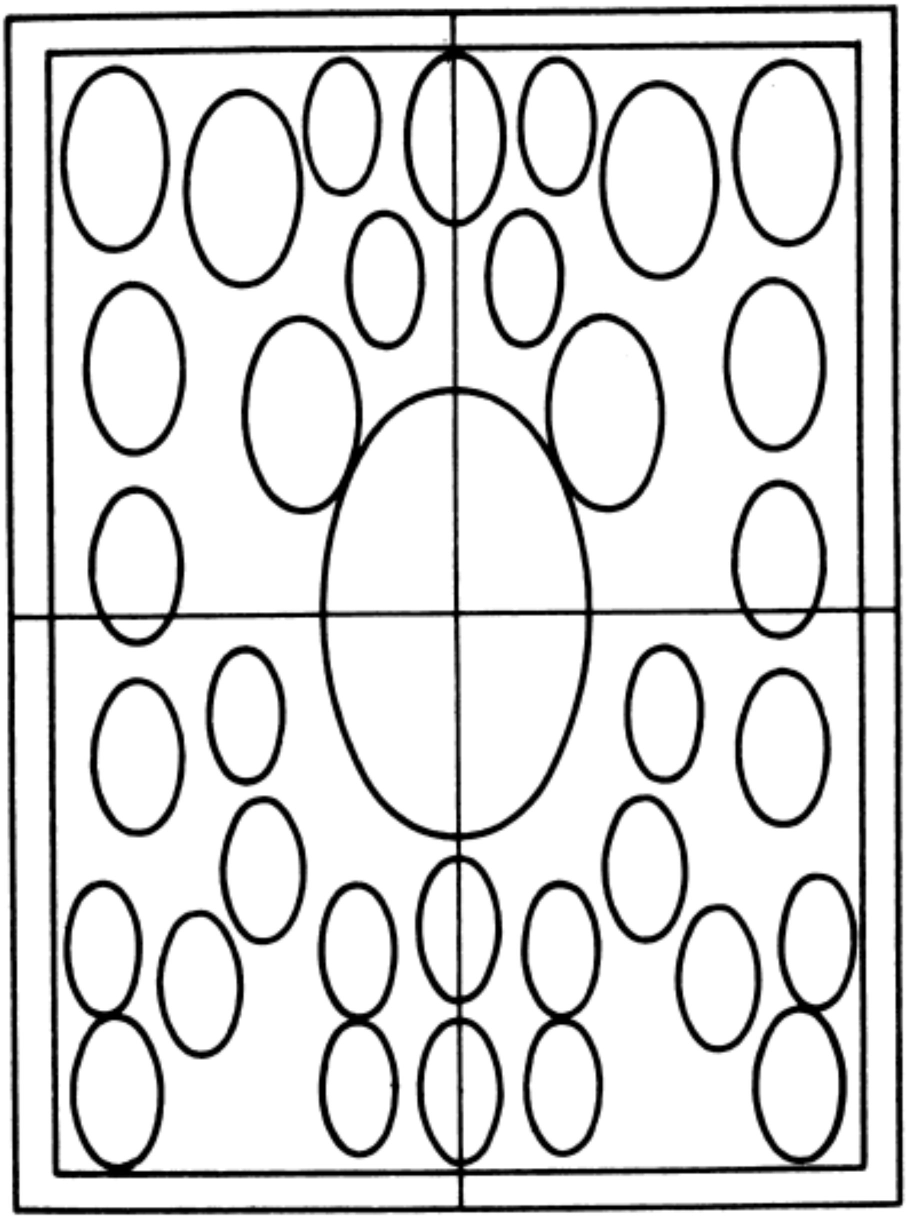

Fig. 9. Preliminary composition of the figures (copyright: D.P. & J.A. Jackson, *Tibetan Thangka Painting*, p. 70)

1 *cha chen* = 1 *zhal tshad* (*thal mo*, length of hand or face, Skt.*tāla*)
1 *thal mo* = 12 *cha chung* (*sor mo*, breadth of fingers, Skt. *aṅgula*)
1 *sor mo* = 4 *rkang pa* (leg)
1 *rkang pa* = 2 *nas* (corn)

The most common proportional groups are:

1. Standing Buddha 125 *sor* = 10 *thal mo* of 12 1/2 *sor* each (Fig. 1)
2. Standing Bodhisattva 120 *sor* = 10 *thal mo* of 12 *sor* each (Fig. 2)
3. Standing goddess 108 *sor* = 9 *thal mo* (Fig. 3)
4. Human being 96 *sor* = 8 *thal mo* (Fig. 4)

One has to stress once more that the small and large units have no absolute values; they are merely used to indicate the proportional relationship within each sacred image.

E. Iconometric practice of Tibetan *thangkas*

In spite of differences between one *thangka* and another, the *thangkas* follow a general plan in their layout. First of all the artist must determine the horizontal and the vertical axes at the intersecting point of the diagonals by drawing them on the fabric (Fig. 5). In the case of a great number of figures appearing on the *thangka* a finer coordinate raster is inserted. Finally, the artist determines the position of the main figure by indicating the outlines of its mandorla and nimbus (Fig. 6). The figure is generally placed in the middle of the painting and centred exactly on the vertical axis (Fig. 7). The exact position of the figure in relation to the horizontal axis depends on the composition of the picture. It can be shifted up or downwards (Fig. 8). If the artist paints a *thangka* with only one figure, it is rather easy for him to find out its position. *Thangkas* with a larger number of representations demand a differentiated division dependent on the hierarchy of the significance of the figures within the whole composition (Fig. 9). The single positions are marked in general by ovals, whose sizes are determined by their iconometrical points given, and then applied to the raster system. The composition in its entirety should represent a *maṇḍala*, the central figure dominating the space and rendering the spiritual essence to the *thangka*.

The series of 16 *thangkas* of which some examples will be introduced here belong to the State Library of the Prussian Cultural Heritage Berlin and are housed in the Museum of Indian Art Berlin (Pl. 30.1). Pictorial representations of legends are shown on them which can be found in the Tibetan translation of a Sanskrit text, the *Avadāna-kalpalatā*. The famous Kashmirian poet Kshemendra started this book in the 11th century A.D. It was afterwards finished by his son Somendra. This big collection of legends in which Kshemendra has interwoven the Buddhist *avadānas* (legends) in the style of court poetry, contains stories narrated more devotionally than wittily and elegantly. This literary collection consists of 107 legends altogether, to which Somendra

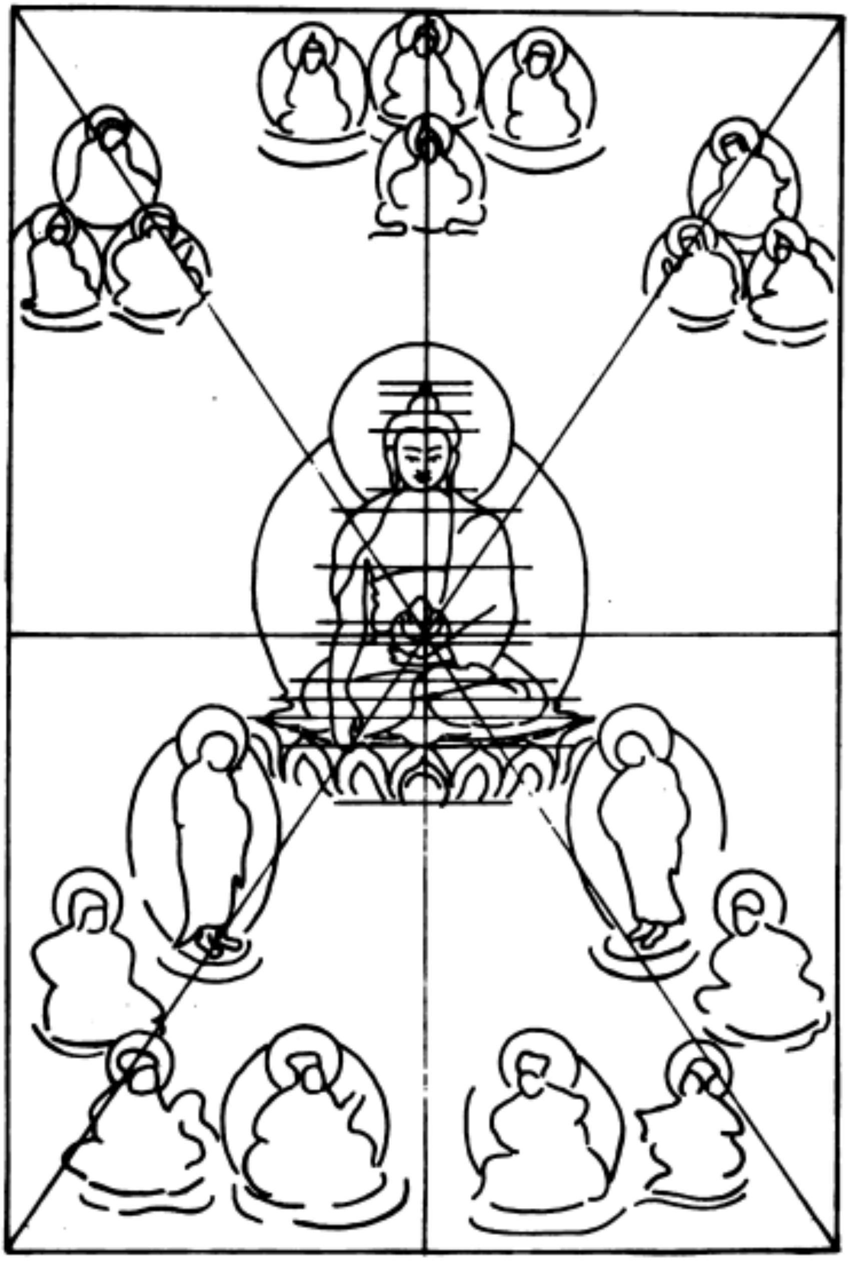

Fig. 10. ***Thangka*** **(drawing: H.J. Paech)**

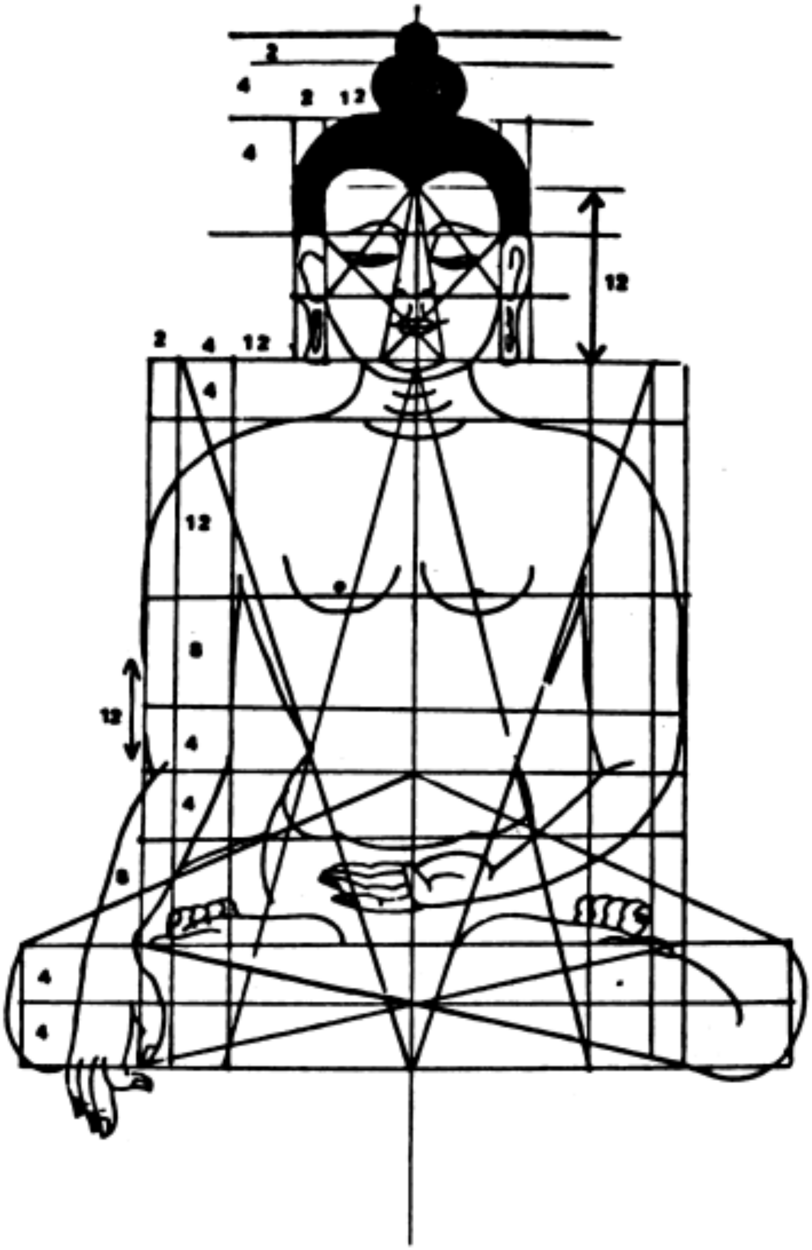

Fig. 11. Measures for a seated Buddha (copyright: K.W. Peterson, 'Sources of Variation in Tibetan Canons of Iconometry', p. 245, Plate B)

added yet another narrative, besides an introduction, in order to come to the holy number 108. Most of these narratives are already known from older *avadāna*-collections. The majority of the legends follows very closely the well-known Indian anthologies like the *Divyāvadāna* or the *Aśokāvadānamālā.* Their goal is to underline the *karma* theory, i.e. the doctrine of the cycles of rebirths by representing the life of the Buddha.

Our *thangka* series descends from the first half of the 18th century, following the century-old tradition which can be traced back to the Tibetan woodcuts. The drafts were copied by the painters who added the various colours to them. If the sequence of the *thangkas* had been determined, the single episodes were arranged around the central figure of the Buddha and explained by more or less comprehensive annotations in the Tibetan language.

Already the first *thangka* of the series makes it clear that the iconometrical instructions given in the texts were taken fully into consideration, the measurements translated exactly into the paintings, in order to provide the donors as well as the artists with sufficient religious merits (Pl. 30.2). The most important figure is the Buddha Śākyamuni, the representation of the supreme essence. As a central figure he dominates the middle space of the *thangka.* The vertical and horizontal axes divide the Buddha who sits exactly in the centre of the picture into symmetrical parts (Figs. 10 and 11).

But not only the proportions of the central Buddha figure are painted perfectly, the whole *thangka* is convincing in its symmetry. Underneath the throne the disciples Śāriputra (left) and Maudgalyāyana (right) are standing opposite to each other, the gods Brahmā (left) and Indra (right) at their feet (Pl. 30.2). The lowermost row consists of four worldly figures, King Udrāyana, King Śuddhodana, Queen Māyā and the merchant Anāthapiṇḍada (from left to right). Above, to the left and right, two groups of three *tāntrikas* and abbots are represented, while in the middle, above the central Buddha figure, another horizontal triad is to be seen with the dialectician and *tāntrika* Śāntarakshita in the centre. Directly beneath him, the famous Fifth Dalai Lama who lived in the beginning of the 16th century is represented.

This example makes it clear that the design requires three or even more scales of measures: that of the main figure, in our case the Buddha Śākyamuni, that of the main retinue, here the two main disciples of the Buddha, that of a lesser retinue above or below and so on. The different scales of measures usually did not express hieratic distinctions, but they depended on the special request of the donor or Lama who advised the painter to commission the *thangka.*

Plate 30.3 shows illustrations of legends of the life of Śākyamuni in its lower part, together with two other narratives in the upper one. The main figure, the Buddha, occupies the centre of the picture; his body is divided into two equal parts by the vertical axis. In the horizontal level the figure is somewhat shifted towards the upper margin of the painting. This is to be attributed to the fact that the legend of his life, represented in detail on the lower part of the *thangka*, fills two-third of the space there. Here as well as in most of the other paintings with representations of narratives, the composition of the single picture is not subjected to any rule of symmetry whatsoever; the legends often appear not even in their chronological sequence. Thus the tales of the life of the Buddha begins below left with the birth of the Bodhisattva in the Lumbini garden; on the right follow bath and return to the palace of King Śuddhodana. The lower strip pictures the youth of the Bodhisattva with two impressive portrayals of his strength—the hurling of the white elephant over the city wall and the feat of archery. The scene which has to follow, the life in the royal palace, appears above right, the four encounters which induced him to leave the world, beside it, while the renunciation of the world itself is again incorporated into the palace life.

As the proportions only of the main persons have been fixed in the texts strictly—I have already pointed above to the different classes of measurements—it is not further peculiar that the small figures, structures or landscape portrayals, interlaced in the legends, appear in an asymmetric manner. Thus as the Buddha on this *thangka* is shown in different sizes within his various stages of life, it becomes quite evident that the smaller figures in narratives are not subjected to the iconometrical rules.

These observations lead to the conclusion that the paintings with representations of single persons or special groups must subject themselves to the iconometrical regulations laid down in the texts, i.e. they are symmetrical to a large extent, whereas scenic representations on *thangkas* are stereotyped but asymmetric.[5]

Notes and references

1. This series consists of 16 temple-banners, a permanent loan of the State Library of the Prussian Cultural Foundation to the Museum of Indian Art Berlin.
2. Taken from the Ph. D. thesis of Hans Ruelius, Śāriputra und Ālekhyalakṣaṇa. Zwei Texte zur Proportionslehre in der indischen und ceylonesischen Kunst, Göttingen, 1974.
3. Gopinatha Rao has compiled materials from the above texts in his book *Elements of Hindu Iconography*, Vol. I, Part II (Delhi, 1968), Appendix B, pp. 1-160, and in his monograph, *Talamana or Iconometry*, Memoirs of the Archaeological Survey of India, No. 3 (Calcutta, 1920).
4. Edited and translated into German by Berthold Laufer, *Dokumente indischer Kunst. Erstes Heft Malerei. Das Citralakṣaṇa* (Leipzig, 1913).
5. This paper had been delivered on the occasion of a workshop organized by the Max Mueller Bhavan, Bombay, on "Symmetry—Asymmetry".

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31

Representations of architectural elements in the oldest murals of Ajanta

Monika Zin

In Caves 9 and 10 of Ajanta, parts of horizontal bands of mural paintings of the so-called "Hīnayāna" period have survived in their original form despite re-paintings in the 5th century A.D. and devastating impacts of later times. Scarcely any attention was paid to these old paintings by previous scholars. A description of some painted scenes in Caves 9 and 10 is given by G. Yazdani in the third volume of his standard publication on the Ajanta paintings.[1] Except for *Shaḍḍanta-jātaka* and *Śyāma-jātaka*, which were identified in 1918 by Foucher,[2] Yazdani gives no other identifications of the old paintings. Some later treatments repeated his descriptions, even though they dated the murals to other periods.[3]

Although only little remains of the original paintings—most are preserved in copies[4]—they are important because of their considerably large size, their beauty, their importance for cultural history, and, above all, they deserve our attention, as they are the only surviving paintings from the oldest period of Buddhist art.[5]

In this article, buildings and other architectural elements painted in Caves 9 and 10 are discussed. The delicate brush of the Ajanta artist allowed him to depict some features of buildings which are never or only very roughly engraved in reliefs from about the same time in Bharhut, Sanchi and Pitalkhora.

1. A residential building

The picture of a building complex[6] (Fig. 1) on the left wall of Cave 9 placed between a scene showing the adoration of a *stūpa* and another scene with a group of debating persons, is defined by Yazdani as a monastery.[7]

The depicted buildings contain a square inner space surrounded by rooms, a form well-known from the rock-cut version of *vihāra* architecture. Yazdani's definition probably was suggested by the immediate proximity of a *stūpa* to the building.

According to D. Schlingloff,[8] the house was not the detail of a story, but rather served as a scene-divider or, placed between two different *jātaka* stories.

The fragment containing the buildings is still relatively visible, yet to examine details it is necessary to refer to the copy by Griffiths.[9]

In his attempt to achieve perspective, the artist drew a building complex as a quadrangle: four rectangular one-storey houses of equal height face each other in a square,

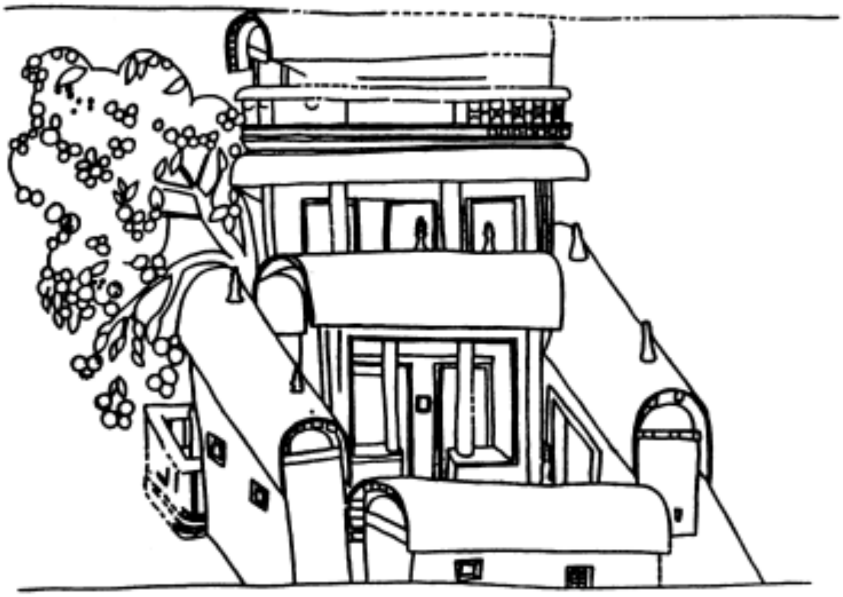

Fig. 1. Wall-painting of a residential building, Cave 9, Ajanta

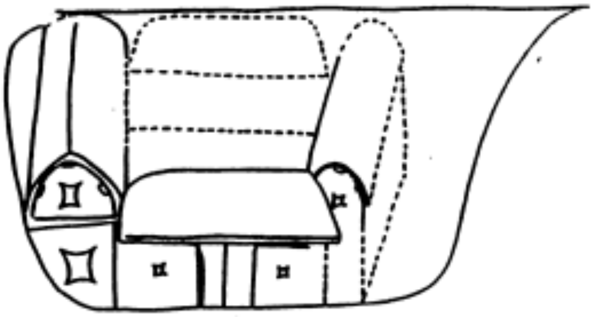

Fig. 2. Relief of a residential building, Bharhut

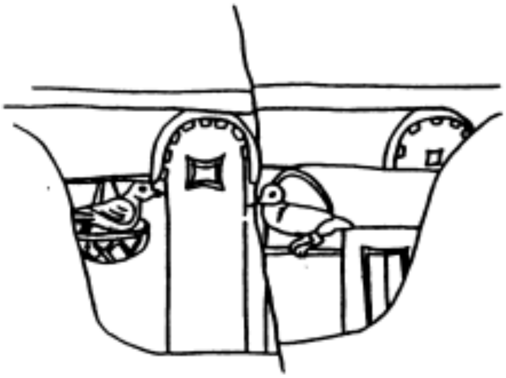

Fig. 3. Relief of a residential building, Bharhut

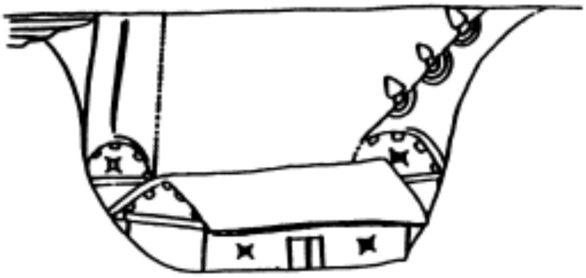

Fig. 4. Relief of a residential building, Bharhut

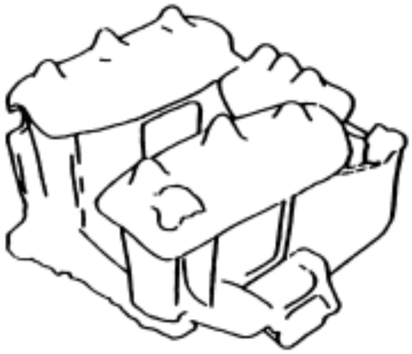

Fig. 5. Terracotta house, Sonkh

their doors opening out onto the open-air courtyard. Some small, framed square windows face out on the other side. The courtyard wall of the farthest house has three openings: a central door with windows on both of its sides, through which the doors leading into the inner rooms are visible. All four houses are covered with barrel-vaulted roofs supported by horizontal beams, which can be seen through the open gables. Eight decorated pinnacles top all of the four roofs. Behind the farthest of the four houses one can see the second floor of a fifth building standing parallel to it. The roof of this building is supported by four pillars that apparently have their base on the roof of the wider ground floor. The upper storey's balcony is created through the difference in width between the upper and ground floor, and the doors leading into the upstairs rooms are set back in the shade. The rather low roof of this top floor probably served as a terrace.

A tree heavy with fruits grows between the block of four houses and the fifth one. The corner of the railing that juts out behind the left-hand courtyard house in the direction of the two-storied building indicates an enclosed orchard between the block of the four houses and the fifth house.

The architecture represented here unquestionably depicts the kind of houses known in literature as the "four-hall"—*chatuḥśāla.*[10] The plot of *Mṛichchhakaṭika*[11] and also of the earlier version[12] of this drama, *Daridrachārudatta*,[13] takes place in such a "four-hall" structure.[14] The urban house in the drama set in Ujjayainī has a side door[15] which led into the garden[16] from a little street through which carts could drive.[17] Entering the garden did not mean one was inside the living area,[18] for in order to enter it one had to pass the door, or, as the thief in *Mṛichchhakaṭika*, hack a hole in the wall.[19]

The format of such houses built around a courtyard, adopted from the farm-house model,[20] suited the climatic and sociological dwelling conditions and continued to be used over hundreds of years.

The "four-hall"-house is represented three times on reliefs in Bharhut (Figs. 2, 3, 4),[21] although only in its rustic form. City houses are depicted in Bharhut or Sanchi only from the front, so none of the buildings around the inner court[22] can be seen.

The best specimen for comparison is a three-dimensional terracotta model of this kind of a house excavated by H. Härtel in Sonkh.[23] The model, dated to the 1st century B.C. and described as a votive tank (Fig. 5),[24] is fashioned in the form of a yard surrounded by four vaulted houses, one of which is missing. Several steps are leading up to a door in one of the outer walls. The remains of a tree can be found on the same side of the model.

Many archaeological finds[25] confirm that such houses as represented in art actually existed. Excavations led by J. Marshall in 1911 in Bhita[26] showed that vaulted[27] buildings with inner courtyards were a feature of urban architecture for hundreds of years. It is particularly interesting to note that older buildings like the "Guild House" dated

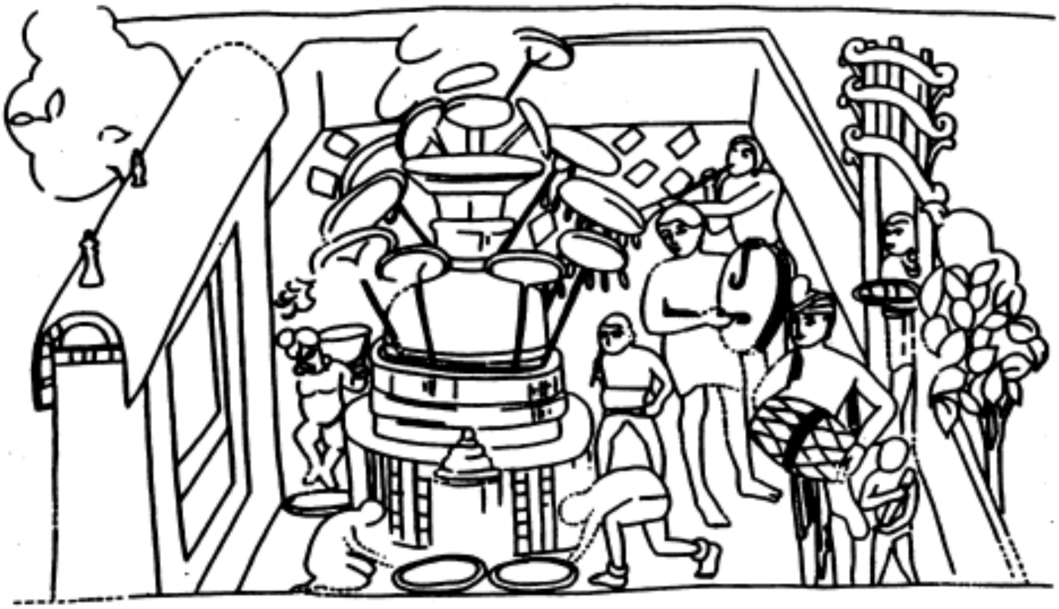

Fig. 6. Wall-painting of a *stūpa* within a courtyard, Cave 9, Ajanta

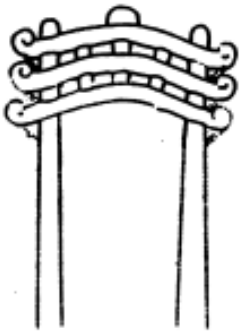

Fig. 7. Wall-painting of a *toraṇa*,
Cave 10, Ajanta

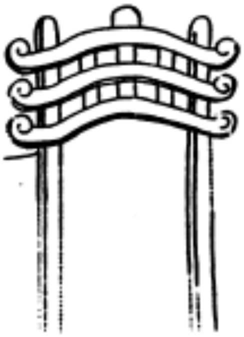

Fig. 8. Wall-painting of a *toraṇa*,
Cave 10, Ajanta

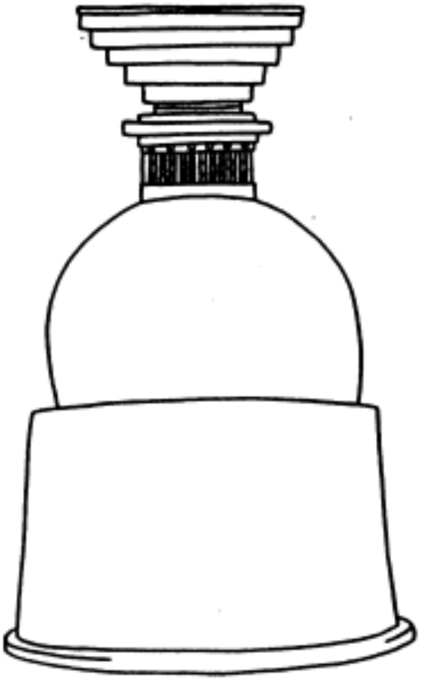

Fig. 9. Structural *stūpa*,
Cave 9, Ajanta

by Marshall to the Maurya period, bordered the main street on one side of its square structure,[28] while later ones, such as the "Nāgadeva House" from the 1st century B.C., were set back from the street.[29] This was done by building a *dvāra-koshṭhaka*,[30] a rectangular multi-storied[31] building used for trade,[32] next to the road and separating it from the living quarters by some space for a garden.

Returning to our painting in Ajanta, we see a typical house of ancient India. Judging by the multi-storied building, it is probably an urban home. The street runs behind, with the main doorway leading from the street into the front hall. On leaving the street, one had to cross the orchard to come into the living quarters in the "four-hall". Yazdani's statement that the building shown here represents the *vihāra* should be reinterpreted. It is true that the architecture of a monastery was similar to the shape of a *chatuḥśāla.*[33] Literature also reveals that *vihāras* were built in a similar way.[34] But the painting leaves little room for doubt that the Ajanta artist two thousand years ago was portraying a house typical for his time, which was conceived as a scene-divider between two separate tales.

2. A *stūpa* in a courtyard

A sacred area for *stūpa*-worship[35] (Fig. 6) is depicted to the left of the *chatuḥśāla*-house. The present state of preservation is poor. For the examination of details we again should turn to the copy by Griffiths[36] in comparison with the line-drawing by Syed Ahmad.[37]

The enclosure is surrounded by a quadrangular fence with two entrances; it contains a *stūpa* embellished with many umbrellas and worshipped in different ways, with offerings, music and processions. The fence seems to be solid; neither rails nor bars are visible. On the right side, that means on the side of *chatuḥśāla*-house discussed above, it has a *toraṇa* along the same line as the fence, similar as in Bharhut but different from Sanchi. The existence of the Bharhut-like L-shaped extension on the outer side of the *toraṇa* cannot be proved, because trees and a devotee block the view. The *toraṇa* is composed of two pillars without capitals, going through three bent architraves with voluted ends. An additional upright element connects all the three architraves, passing vertically through their centres and protruding, as do the pillars, over the top architrave. All the voluted ends of the architraves are supported by simple but slightly curved brackets. The *toraṇa* is not decorated, and is depicted as though it was made of flat boards. This could be accounted because of the difficulty in portraying a perspective.

Two other *toraṇa*-gateways are depicted in Cave 10 (Fig. 7[38] and Fig. 8[39]) in the earliest painting showing the life of the Buddha.[40] The simple form of all those painted *toraṇas* corresponds to similar depictions on reliefs in Sanchi[41] and Pitalkhora.[42]

The entrance on the opposite side to the sacred area is shown in the form of a gateway-building (*dvāra-koshṭhaka*). The building is analogous to houses that make up a

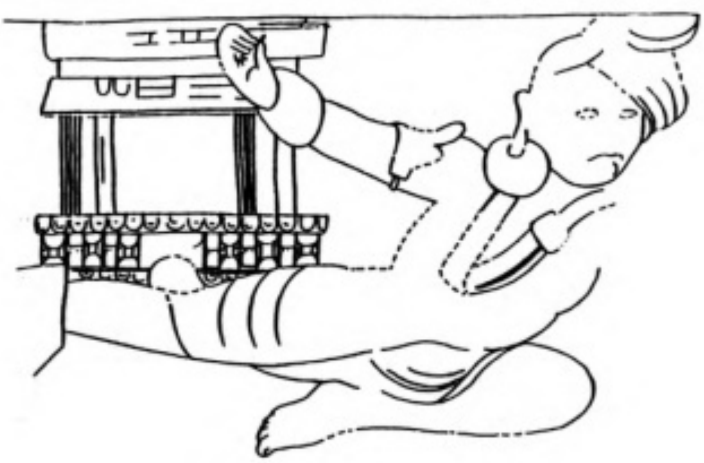

Fig. 10. Wall-painting of a *vimāna* floating in the air, Cave 9, Ajanta

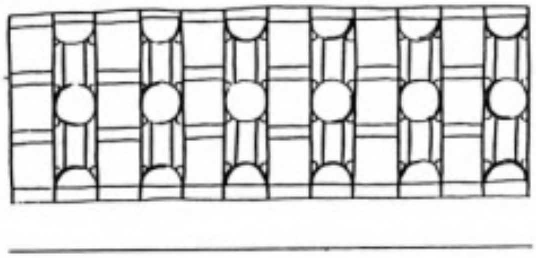

Fig. 12. Structural railing of Stūpa 2, Sanchi

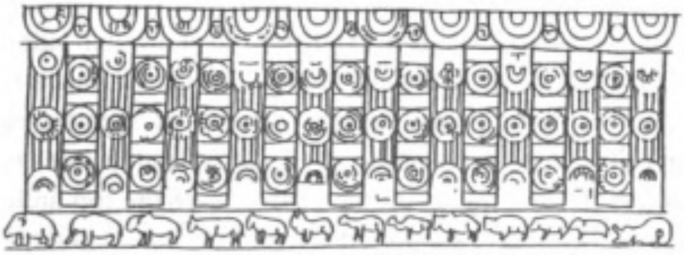

Fig. 13. Structural railing, Cave 3, Kanheri

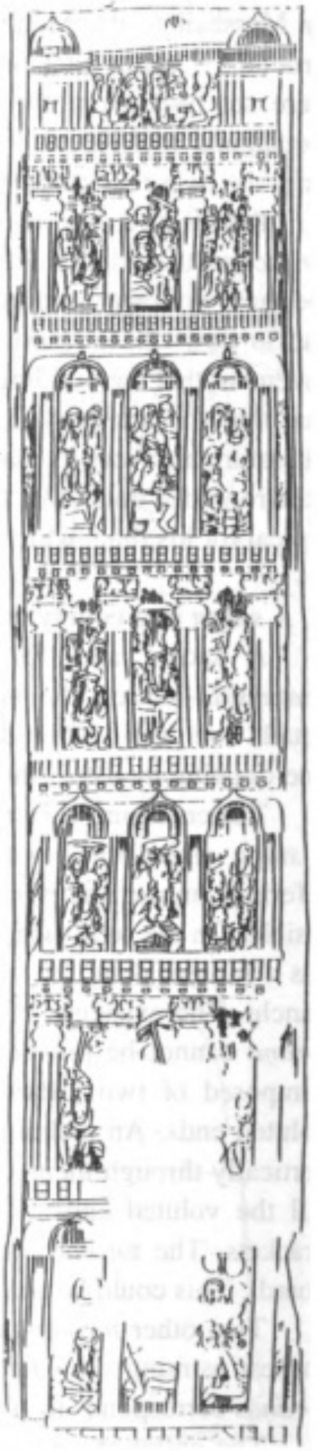

Fig. 11. Reliefs of heavenly storeys, east gateway of Stūpa 1, Sanchi

"four-hall"-house: the vaulted roof with three pinnacles covers a simple rectangular building. The door-openings are located within the long walls of the building, through which another doorway in a parallel wall can be seen.

The sanctuary of the enclosure is a *stūpa*, which is placed not in the middle, but to the left of the centre of the yard. This *stūpa* has a globular dome located on the high cylindrical base veneered or surrounded by railing-like panels. The copy by Griffiths clearly shows that the drum-part of the *stūpa* has wide mouldings under which one can imagine an elevated balustrade. The upper part of the *stūpa* is surrounded by many umbrellas and is hard to define. It seems to have the typical inverted form, but the stepped, pyramidal shape cannot be seen. The largest umbrella in the centre apparently is a part of the structure.

On the front of the plinth at ground level a sort of projection is depicted of which only the domed upper part is visible. The structure is unique in this time so the question of what it represents remains open.

Comparing the shape of the *stūpa* to the structural *stūpa* in the same Cave (Fig. 9),[43] their shapes are similar; however, there are remarkable differences regarding their details.

3. A *vimāna* floating in the air

To examine the next painting showing a piece of architectural construction,[44] we do not have to rely entirely on copies, as this building is so well preserved that even the delicate lines of an elaborately-fashioned ornament covering the railing are still visible (Fig. 10). This beautiful simple building is painted on the interior front wall to the left of the entrance of Cave 9, above the window, so it is farther left of the murals on the side wall described earlier. Originally there were two such buildings; the corner of the second building seen in the copy of Griffiths[45] bears evidence that the second structure was analogous to the first one.

Using a light yellow over the brown background, the painter drew a simple but very elegant building with open sides: four neatly shaped tall pillars are supporting the multi-layered flat roof which probably served as a terrace. No roof windows are visible; it must be observed, however, that the roof touches the brown strip stretching across the top border of the whole composition. So a higher roof, roof-windows or balconies could have been accidently omitted. The four pillars, which have neither capitals nor bases, stand on the floor that is not visible to us. It is hidden behind a regular railing that surrounds the whole building. This railing consists of horizontal beams keeping the uprights together at the top and bottom. Each upright rail is decorated with an ornament of two semicircles. The building is painted behind a flying male person (identified by Yazdani as "an apsaras" (sic!).[46] It apparently belongs to the scene and certainly serves not only a decorative but also a semantic purpose. The fact that the structure is actually hanging in mid-air perfectly suits the context of the flying person and could not imply anything else but the place from where the male figure is flying.

According to D. Schlingloff[47] the painting represents the story of Mahāgovinda. The flying figure may represent god Brahmā, coming from heaven to honour this wise minister, who appears farther down while giving advice to six kings listening attentively. Certainly the flying god does not look like the Brahmā we know from later art periods, but at the time of this paintings the iconography of this god was not developed. Besides the appearance of Brahmā, all other elements of the composition confirm Schlingloff's interpretation. The building hanging in the air fits into the picture as a whole, signifying the place from where the heavenly figure is coming.

Celestial buildings generally bear the name *vimāna,* but it is extremely difficult to define the meanings of this term. Vedic literature uses *vimāna* in its literal sense, i.e. the measuring, covering a (huge) space.[48] In the medieval texts the term indicates the architectural structure of certain temples[49] and today still is used in this context. In post-Vedic literature the word signifies both the palace (*prāsāda*) and the vehicle of the gods (*ratha*) flying in the air. In *R.V.* 2.40.3, the attributive meaning of *vimāna* already carries its later significance.[50] In the *Mahābhārata*, *vimāna* is the means of transport conveying the gods through the air[51] at the will of the riders.[52] In the same text, impressive buildings also are compared to *vimānas*,[53] while the same term is used to describe palaces of the kings.[54] There is one reference to the appearance of such a palace: made of gold, it possesses gateways, arches and thousands of columns made of gems.[55] In the *Rāmāyaṇa* the term *vimāna* is used to signify the normal city-house[56] or the palace[57]; it denotes also the famous flying palace named Pushpaka.[58]

The ambiguous application of *vimāna* is reflected throughout the *Purāṇa* literature[59] and does not change in classical times. Besides Pushpaka[60] and the other flying *vimānas*, [61] Kālidāsa's work also mentions city-*vimānas* of Alakā[62] and also one *vimāna* construction built for the consecration of the king Atithi, which is described as a pavilion standing on four pillars,[63] specially constructed to provide a majestic roof over the king's throne, *bhadra-pīṭha.*

In some later texts the gods were deprived of their divine privilege and magical *kāmaga* vehicles became mere flying machines for common people.[64]

Generally, however, flying *vimānas* signify palaces inhabited by supraterrestrial citizens. Jaina cosmology goes so far as to specify not only the layout of individual palaces but also the planning of entire celestial cities.[65]

In the Jaina and Buddhist literature, flying *vimānas* are palaces where blissful persons dwell in their heavenly existence before being born on the earth,[66] or afterwards, in reward for good deeds they carried out during their earthly lives. A few descriptions of such heavenly sojourns are worth mentioning here, because they contain information about the architecture and appearance of *vimānas.*

Vimānavatthu,[67] a part of the Pāli canon, and its commentary by Dhammapāla,[68] include several such descriptions. The text always follows the same cliché: the venerable Mahā Moggallāna travels around the heaven of the Thirty-three Gods, visiting the flying palaces and asking every inhabitant what good deed on earth merits such a splendid reward.[69] Naturally the dwellings of well-doers must be portrayed as being especially gorgeous. Palaces have enormous dimensions. They are 12[70] or 30[71] miles big or 100 miles high,[72] made of gold[73] or jewels.[74] They are built with pillars made of beryl,[75] their plinths are made of precious jewels.[76] The descriptions are in most cases reduced to the stereotyped depiction of structures with pillars of gems and 700 pinnacled roof-houses, *kūṭāgāras,* supported by beryl beams.[77]

Some descriptions also include other features of *vimānas*, such as a railing of gold or precious gems,[78] or a *toraṇa.*[79] The frequent reference to immense gardens[80] with lotus pools[81] full of water-birds[82] shows that the writers hardly could imagine *vimānas* as really flying.

Jātaka 541[83] records another episode of sight-seeing in heaven: Mātali is driving King Nimi in a chariot and explaining the merits for which good souls received their *vimānas.* Once again we hear of rich buildings supported by pillars, provided with roof-houses.[84] When Mātali and Nimi finally arrive in the assembly hall of the gods, it too is described as supported by beryl pillars, which are characterized by the additional description of being octagonal.[85]

Petavatthu[86] also furnishes several descriptions of *vimānas*. This canonical text does not deal with saints but with the deceased whose deeds brought them part paradisal luxury and part infernal suffering. It is set not in heaven but somewhere in the middle of the ocean (*samuddamajjhe*)[87] or in the Himalayas.[88] The palaces of this *vimānapetas/-petīs* are again made of precious stones, decorated with paintings,[89] and golden stairs that lead to beautiful gardens full of flowers, pools and birds.[90] In the Buddhist Sanskrit literature, the hero of the *Śroṇakoṭīkarṇāvadāna*[91] visits one of these half-benefactor half-sinners. Unfortuanately, the pictorial depiction of the story in Cave 212 "Seefahrer-Höhle" in the Central Asiatic Kizil[92] is limited to the *vimāna* as a sort of throne, not an architectural structure.

It is clearly stated in all descriptions of non-earthly *vimānas* that no features besides the huge measurements and precious materials were created to distinguish the heavenly from the worldly *vimānas*. The same applies to the iconographic representations. Even though inscriptions (*sudhaṁmā devasabhā*)[93] or incontestable interpretations[94] make certain that the scenes play in heaven, their pictorial depictions portray very worldly buildings with balconies, railings and roof-houses. It seems that writers always used pillars to signify celestial houses or at least applied the term to describe buildings as being very rich and special. Thus, in the inscribed heavenly scene depicting the adoration of the turban, the object of worship is located inside a round pavilion supported by many columns. In Sanchi I the whole eastern side of the eastern gateway's north pillar[95] is occupied by a representation of the seven heavenly storeys (Fig. 11). One storey is placed on top of the other, and each shows a king of a heavenly compartment with a *vajra* and *amṛita*-jar, surrounded by his retinue. The heavens are depicted as pavilions supported by four pillars, which in turn stand on top of another pavilion with four columns. With the exception of the ground floor of the bottom pavilion, all are two-storied structures. Their ground floor is furnished with columns decorated by elaborate capitals, while their upper floor has simple shafts with brackets. At the top of the Sanchi Pillar, the highest floor of this multi-levelled structure has a balcony. All levels are depicted with railings, all roofs with pinnacled roof-houses.

Returning to our painting in Cave 9 at Ajanta, the certainty that the painted structure is a *vimāna* lies in its depiction as floating in mid-air behind the flying god. Our painting is the only *vimāna* representation in old Indian art shown as really flying.

The balustrade of the pavilion may help to date the paintings. The ornament depicted on the rails is by no means accidental. It is painted delicately but with a clear and precisely-drawn line.

A very similar pattern was depicted on the balcony balustrade of the previously discussed *chatuḥśāla*. It is very possible that the railings were identical, but such tiny details on the *chatuḥśāla* are known only from the Griffiths' copy, which is not necessarily accurate in all its particulars.

A horizontal beam runs along the top and bottom of the railing. A row of semicircles, some with dots in the middle, is depicted on the beams. The round part of the semicircles face the middle of the railing. Each upright is decorated with two semicircles, their chords touching the upper and lower beam. Two vertical lines run between the bows of the semicircles, parallel to the side lines of the upright. Minute bows are still identifiable in the corners between the semicircles and the edges of the uprights. Cross elements of the railing are not decorated.

The pattern is not random. It shows the linear equivalent of *vedikā*, or may be the wooden version of the railing we know as stone *vedikā*, and is related most closely to the balustrade of the *medhi* on Sanchi I or the ground-railing of Sanchi II (Fig. 12).[96] However, unlike the railings in Sanchi which are covered with three medallions, the painted version in Ajanta depicts only two, like the carved railing-patterns on the north gateway in Sanchi I.[97]

Semicircles on the horizontal rail are also not a random feature, but I was not able to find a contemporary comparison in stone. *Vedikās* in front of the *chaityas* in Kanheri

(Fig. 13)[98] and Nasik III[99] carry rows of half-lotuses depicted on copings. Possibly the half-medallions on the *ushṇīsha* were the basic model used by the painter in Ajanta. However, even if one takes into account the schematic drawings of the tiny painting, it is immediately obvious that the railing in Ajanta stems from an earlier time in the ornament's evolution than those carved in the *chaityas.* In Nasik and Kanheri the host of lotus-medallions is so dense that the railing itself is almost undecipherable. In Ajanta, on the other hand, the organic features of the posts are very clear.

The paintings of two architectural constructions in Cave 9 (Figs. 14 and 19) have never been published[100] or discussed. These structures are depicted on the right side of the cave on the upper part of the wall directly under the ceiling. Two equally-sized fragments seem to represent related buildings even though they are divided by a now empty space of about 5 m. They are in a rather poor state of preservation, and no copies of any of the fragments were ever made.

It is my assumption that the damaged rows of many Buddhas[101] (most probably representing the "Miracle of Śrāvastī") next to these architectural fragments cover up some other depictions of architecture, because some geometrically-shaped surfaces can be seen beneath the later painting, which also is very damaged. Since such a large surface was covered with representations of architecture, there was definitely at least one, if not several narrative scenes, drawn in front of the buildings. The two small remainders on the top of the wall can only be interpreted as decorative elements. We will never know what was the main scene for which this background was created and depicted.

4. Fortified residential buildings

The first of the unpublished fragments (Fig. 14) shows a tall palace hall. Several simple and slender columns without capitals seem to stand at equal distances.

Columns support a coffered and elaborate ceiling. The drawing of the beams and rafters is quite well-preserved. There is a terrace on the entablature, but its balustrade is not visible. The upper storey roof-house, *kūṭāgāra*, is located on the terrace. It looks like a single, independent house. Thanks to a view from the side, we can see that the door (or window) has its own vaulted roof lying on horizontal beams. The typical pinnacle on the top of the arch is missing, but this does not mean that its form is abnormal. The composition of the painting was calculated wrongly, and the painter reached the ceiling before he could finish the top of his subject.

Very similar construction with one *kūṭāgāra* on the top is shown on the north pillar of the eastern *toraṇa* in Sanchi[102] (Fig. 15). On our painting it is no longer clearly visible what exactly was located left of the *kūṭāgāra*: only a few lines, higher than the roof, showing a separate small dome and windows in two walls, could signify a high separate

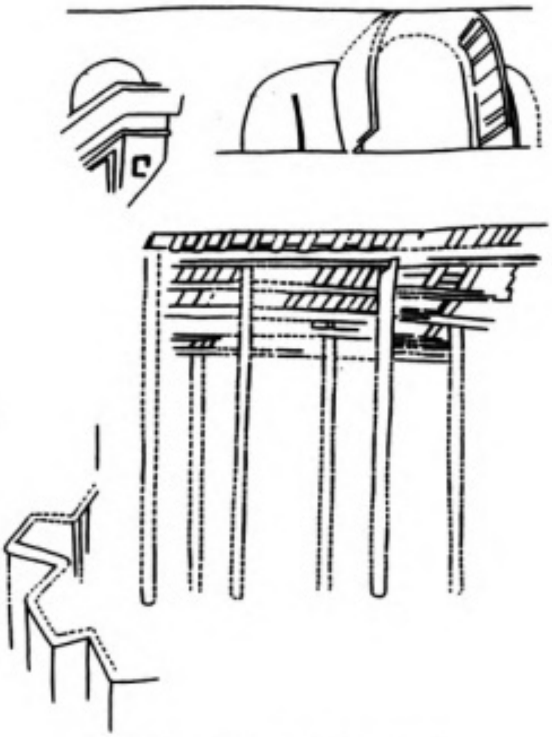

Fig. 14. Wall-painting, depicting a fortified building, Cave 9, Ajanta

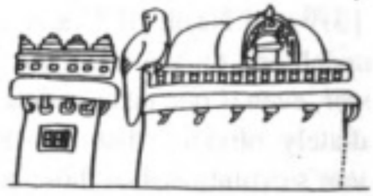

Fig. 15. Relief showing a *kuṭāgāra* and a tower on north pillar of east *toraṇa* of Stūpa 1, Sanchi

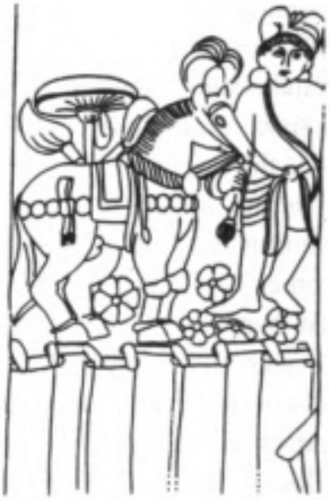

Fig. 16. Relief showing the great departure and city-walls, Bharhut

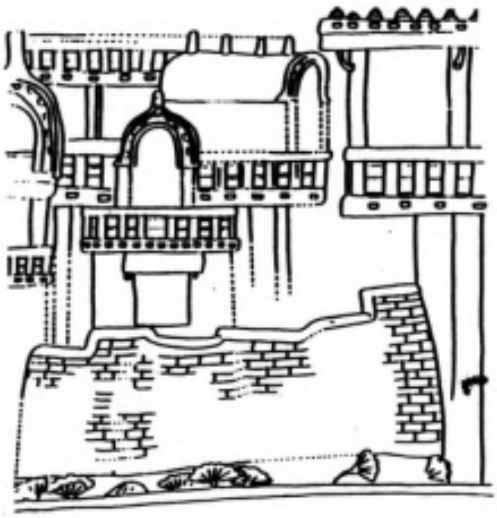

Fig. 17. Relief showing fortified residential buildings, south *toraṇa* of Stūpa 1, Sanchi

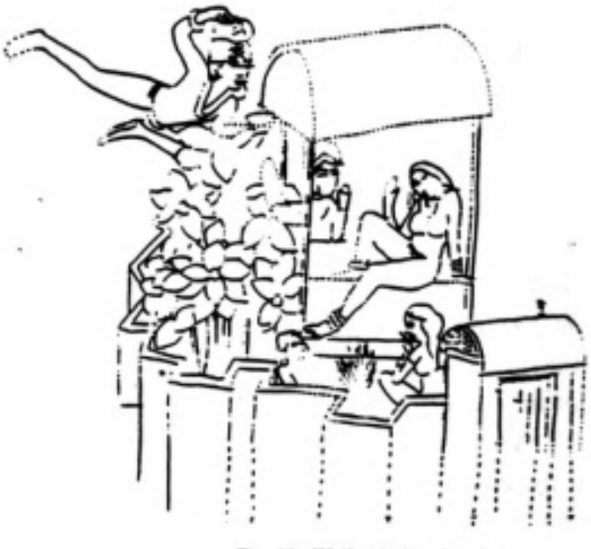

Fig. 18. Wall-painting showing a fortified palace, Cave 9, Ajanta

structure. Were it a fortified tower, like that in the Sanchi relief, it would correspond closely with the fortified and stepped walls that zigzag along the bottom left side of the colonnade.

Similar city-walls are depicted on the relief in Bharhut, showing "The Great Departure" (Fig. 16)[103] and in Sanchi I, south *toraṇa*, showing Kusinara[104] (Fig. 17). An identical construction is depicted again at the right end of the frieze-like murals on the left side wall of Cave 9 (Fig. 18).[105]

The entablature painted on the mural is the only known representation of a network ceiling from the old epoch. Such ceilings are depicted often in the later Ajanta—the so-called "Mahāyāna"—murals, where most of the palace-scenes are set in pavilions shown from the angle of the bare floor.

Close by is another depiction of the entablature from the pre-Christian times, on the ceiling of the aisle just a few centimetres higher up. Both the ceilings of the cave's two aisles are decorated with a painting of the network of beams and rafters. The painter placed a lotus-rosette in each field of the coffered ceiling, and apparently made a conscious effort to give the beams a naturalist outlook by covering them with a veined pattern.[106]

5. *Chaitya-gṛihas*

In 1925 O. Reuter presented the evidence to prove his theory that it would be impossible for a wooden *chaitya*-hall, built according to the construction known to us from the rock-cut architecture to stand by itself as a free-standing building.[107] According to this theory, the *chaitya*-hall is a simplified composition of two floors: the hall supported by pillars and the vaulted upper floor. To present the magnitude of the interior the floor separating those two levels was removed. Reuter's theory never received any acclaim, no doubt because the work by P. Brown,[108] presenting all rock-cut architecture forms as their wooden equivalents without accounting for differences in their construction, was widely known and accepted.

Looking at the second painting from Ajanta, never published before, (Fig. 19), we first see a typical *chaitya*-window, and because of its proportion to the lower colonnade and the centrality of the whole composition, we presume the building is a *chaitya-gṛiha*, a free-standing *chaitya-gṛiha*.

Taking a close look at the painting it is possible to see that the *chaitya*-window was painted against the background of a transverse, barrel-vaulted roof. This is proved by the clearly-visible pinnacles. What is really astonishing is that the place in which we would expect an open space or balustrade under the window actually shows a bare floor, drawn in perspective. That means a ceiling existed between the lower and the vaulted part of the building. The structure is thus similar to the upper part of the fortified building from Fig. 14, only drawn from the front.

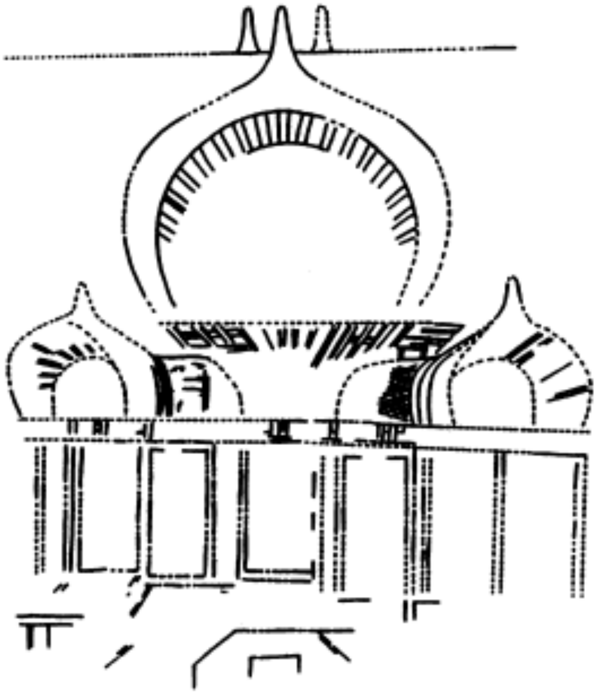

Fig. 19. Wall-painting depicting a *chaitya-gṛiha,* Cave 9, Ajanta

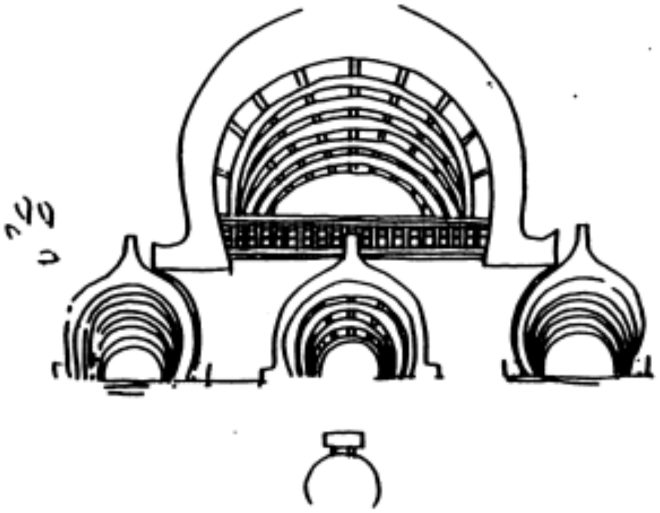

Fig. 20. Wall-painting depicting a *chaitya-gṛiha,* Cave 10, Ajanta

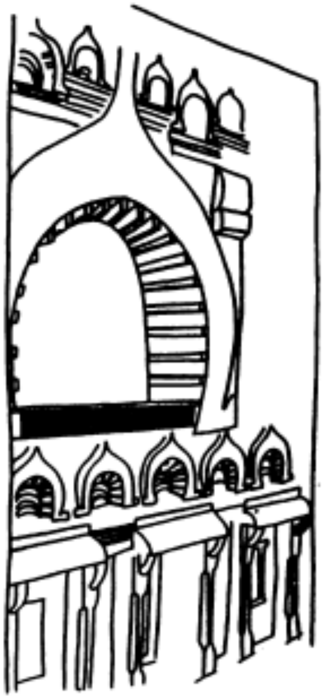

Fig. 21. Façade of Cave 9, Ajanta

Farther down there are two smaller (window?) arches, shown symmetrically on the two sides of the central window. The smaller ones, however, are no longer depicted from the front but in side views—the left arch from the left-hand side, and the right arch from the right-hand side. Checkered surfaces are visible on the sides of both arches for which there is no explanation other than that they are the small vaulted roofs of the two entrance-halls. The complicated construction method using many pillars can no longer be explained.

The painted *chaitya-gṛiha*[109] of Cave 10, depicting the Shaḍdanta-story,[110] appears to portray a rock-cut temple, since it contains a *stūpa* inside (Fig. 20). The façade, of which only the upper part is visible, is not identical to any *chaitya-gṛihas* known today but bears similarity with them, as for instance the façade in neighbouring Cave 9 (Fig. 21).[111]

Notes and references

1. G. Yazdani, *Ajanta, The Colour and Monochrome Reproductions of the Ajanta Frescoes Based on Photography*, Vol. 3 (Oxford, 1946). Cave 9: pp. 15-20, 22-23 and Cave 10: pp. 24-37.
2. A. Foucher, *The Beginnings of Buddhist Art and Other Essays* (London, 1918), pp. 185-204 (Extract from *Mélanges Sylvain Lévi*, Paris 1911); cf. A. Foucher, 'Lettre d'Ajaṇṭa' in: *Journal Asiatique*, 1921, pp. 201-45 = Rapport préliminaire sur l'interprétation des peintures et sculptures d'Ajanta, Bombay, 1920 = transl. A. Hydari, 'Preliminary Report on the Interpretation of the Paintings and Sculptures of Ajanta' in *Journal of the Hyderabad Archaeological Society*, Vol. 5, 1919/20, pp. 50-111.
3. Yazdani dates the paintings in Cave 9, together with "animal frieze" to 1st century A.D., *op. cit.* (no. 1), pp. 16,23; C. Fabri, ('Frescoes of Ajanta', *Mārg*, Vol. 9, Bombay, 1955, pp. 61-76) believes in the 'hellenistic influence' of an 'animal frieze' and dates it at the end of the 1st century B.C., *op. cit.*, p. 65. For H. Goetz, ('Golden Age of Buddhist Art Paintings: Ajanta' in *Mārg*, Vol. 9, Bombay, 1956, pp. 86-92) this frieze belongs to the late 2nd or early 3rd century A.D., while the rest of the old paintings are later than Sanchi, belonging to the late 1st century B.C.
4. J. Griffiths 9.E: Indian Section of Victoria & Albert Museum (I.S.), 8-1892, India Office (I.O.) Special Volume A, No. A, p. 2 [3625], No. A, p. 4 [3627], No. A. p. 5 [3628]; 9. H: I.S. 137-185, I.O. Vol. 70, No. 5962 [3633]; 10. A: I.S. 33-1885 [67732], I.O. Vol. 70, No. 5963 [3634]; 10. B: I.S. 19-1885 [69936-69937], I.O. Vol. 70, No. 5964 [3635]; 10. C: I.S. 34-1885, I.O. Vol. 70, No. 5965 [3636]; No. 10. D: I.S. 32-1885, I.O. Vol. 70, No. 5966 [3636]; 10. E: I.S. 72-1887, I.O. Vol. 71, No. 5997 [3637], No. 5998 [3638], No. 5999 [3639]; 10 F. I.O. Vol. 71, No. 6000 [3637], No. 6001 [3639], No. 6002 [3640], No. 6003 [3641]; 10. G: I.O. Vol. 71, No. 6004 [3643]; 10. H. I.O. Vol. 71, No. 6005 [3644]; 10.1: I.S. 74-1887, I.O. Vol. 71, No. 6006 [3645], No. 6007 [3646], No. 6008 [3647], No. 6009 [3648]; 10.J: I.S. 74-1887, I.O. Vol. 71, No. 6010 [3649], No. 6011 [3650]; 10.K: I.S. 75-1887, I.O. Vol. 73, No. 6059 [3644]; 10.L: I.O. Vol. 73, No. 6057 [3645], No. 6058 [3644]; J. Griffiths, *The Paintings in the Buddhist Cave-Temples of Ajanta, Khandesh, India* (London, 1896), Vol. 1. Pl. See also line drawings by Syed Ahmad in Yazdani, Vol. 3, 1946, *op. cit.* (n. 1).
5. Only murals in the Jogimara Cave of the Ramgarh Hill are temporally and quantitatively comparable with the old paintings of Ajanta; see T. Bloch, 'Caves and Inscriptions in Ramgarh Hill', in *ARASI*,

1903-04 (Calcutta, 1905), pp. 123-31; H. Falk, 'Kunstdichtung in den Höhlen von Ramgarh', in *Astiche Studien*, Bd. 45, 2 (Bern, 1991), pp. 257-76.

6. Reprod. in G. Yazdani, Vol. 3, 1946, *op. cit.* (n. 1), Pl. 16 b-c; *South Asian Art Photo Collection, Ajanta-Caves*, ed. W. Spink, Zug (Switzerland) 1981, (from now onwards called *S.A.A.P.C.*) 1-1081, No. 24, 5-6.
7. Yazdani, Vol. 3, 1946, *op. cit.* (n. 1), p. 18.
8. D. Schlingloff, *Ajanta-Handbuch der Wandmalereien* (München 1993), No. 3-4 = IX, 11, 3-4.
9. J. Griffiths: 9. E: I.S. No. 8-1892; I.O. Spec. Vol. A, No. A, p. 2 [3625], No. A, p. 4 [3627], No. A, p. 5 [3628].
10. The structure of the house is analyzed and compared with the literary terms of house architecture in D. Schlingloff, *Die alt-indische Stadt, Eine vergleichende Untersuchung = Abhandlungen der Geistes—und Sozialwissenschaftlichen Klasse der Akademie der Wissenschaften und der Literatur* (Mainz, 1969), Nr. 5 (Wiesbaden, 1970), p. 139, Abb. 25.

    Chatuḥśāla is known from the epics. *MBh.* 1. 132.8: *tatra gatvā chatuḥśālaṁ gṛihaṁ parama-saṁvṛitam / āyudh-āgāram=āśritya kārayethā mahā-dhanam //*(Critical ed. Poona, 1933-71, Vol. 1, p. 582); *MBh*, 3. 204.5: *ity=uktaḥ sa praviśy=ātha dadarśa param-ārchitam / saudhaṁ hṛidyaṁ chatūḥśālam=at=īva cha mano-haram//*(crit. ed. Vol. 3, p. 732); *Rāmāyaṇa*, 2.85.29: *chatuḥśālāni śubhrāṇi śālāś=cha gaja-vājinām / harmya-prāsāda-saṁghātās=toraṇāni śubhāni cha //* (crit. ed., Baroda, 1960-71, Vol. 2, p. 490). For farther references, see J.K. De Cock, *Eene oud-indische stad volgens het Epos,* Diss. Amsterdam, 1899.
11. *Mṛichchhakaṭika*, ed. K. P. Parab, (Bombay, 1904); *The Little Clay Cart*, transl. A. W. Ryder, Harvard Oriental Series, Vol. 9 (Cambridge, Mass., 1905).
12. According to me, Chārudatta transmitted the part of the old version of the drama. The other younger and corrected version builds well-known drama *Mṛichchhakaṭika.* See V. S. Sukthankar, 'Studies in Bhāsa III. On the relationship between Cārudatta and the Mṛcchakaṭika', in *Journal of the American Oriental Society*, Vol. 42 (Chicago, 1922), pp. 59-74.
13. *Chārudatta*, ed. in: *Bhāsanāṭakachakraṁ* ed. C. R. Devadhar, (Delhi, 1987), (First ed. Poona, 1937, Poona Oriental Series, No. 54), pp. 191-247; transl.: in *Thirteen Plays of Bhāsa*, transl. by A.C. Woolner/ L. Sarup, (Oxford, 1930-31) (repr. Delhi, 1985), Vol. 1, pp. 71-102.
14. *Chārudatta* 1st act, ed. p. 205: *Vidūshakaḥ: radaṇie gachchha chauppahe maṁ paḍivalehi jāva ahaṁ vi abbhantara-chaussālādo dīvaṁ gaṇhia āachchhāmi:* 1st. act, ed. p.209: *Nāyakaḥ: radanike praveśyatām abbhantara-chatuḥśālaṁ*: 3rd. act, ed. p. 226: *Vidūshakaḥ : kiṁ ṇimittaṁ aaṁ alaṅkāro abbhantara-chaussālaṁ ṇa ppavesīadi: Mṛichchhakaṭika*, 3rd. act, ed. p. 83: *Vidūshakaḥ: bho vaassa abbhantara-chatussālaaṁ pavesaāmi ṇam.*
15. *Mṛichchhakaṭika*, 1st act, ed. p. 28: *Vasantasenā. . . bhitti-parāmarisa-sūidaṁ pakkha-duāraaṁ kkhu / edam jāṇāmi a saṁjoeṇa gehassa saṁvudaṁ pakkha-duāraam. Mṛichchhakaṭika,* 1st. act, ed. p.30: *Vidūshakaḥ: avāvuda pakkha-duāraeṇa piṇḍībhūdeṇa vādeṇa ṇivvāvido padīvo / bhodi radaṇie ṇikkama tumaṁ pakkha-duāraeṇa / ahaṁ pi abbhantara-chadussāllādo padīvaṁ pajjālia āachchhāmi.*
16. *Chārudatta*, 3rd act, ed. p. 230: *Cheḍī: ayyamettea amhāṇaṁ rukkhavāḍiā-pakkhaduvāḷe sandhiṁ chhindia choro paviṭṭho.*
17. *Mṛichchhakaṭika,* 6th act, ed. p. 161: *Sthāvarakaś=cheṭaḥ. . .edaṁ pavahaṇaṁ ajja chāludattaśśa rukkha-vāḍiāe pakkha-duālae thāvemi.*
18. *Mṛichchhakaṭika*, 3rd act, ed. p. 85: *Śarvilakaḥ: . .vṛiksha-vāṭikā-parisare saṁdhiṁ kṛitvā pravishṭo='smi madhyamakaṁ/tad yāvad=idānīṁ chatuḥsālakam=api dūshayāmi.* Same in *Chārudatta*, 3rd act, ed. p. 227: *Sajjalakaḥ:. . .vṛiksha-vaṭikā-paksha-dvāre sandhiṁ chhitvā pravishṭo='smi yāvad idānīṁ chatuḥśālam upasarpāmi.*

19. *Mṛichchhakaṭika*, 3rd act, ed. p. 85: *Śarvilakaḥ:. . .tat kasminn=uddeśe saṁdhim=utpādayāmi. . . (bhittiṁ parāmṛiśya)...tad atra pakv-eshṭaka ishṭikākarishaṇam* /
20. D. Schlingloff 1969, *op. cit.* (n. 10), p. 26.
21. Fig. 2, reprod. in A. Cunningham, *The Stupa of Bharhut, A Buddhist Monument, Ornamented with Numerous Sculptures* (London, 1879), repr. (Varanasi, 1962), Pl. 42.7; A.K. Coomaraswamy, *La sculpture de Bharhut = Annals du Musée Guimet, Bibliothéque d'Art*, Nouvelle Série, 4 (Paris, 1956), Pl. 46, Fig. 182. Fig. 3, reprod. in Cunningham, Pl. 45; Coomaraswamy, Pl. 48, Fig. 221. Fig. 4, reprod. in P. Chandra, *Stone Sculpture in the Allahabad Museum* (Bombay, 1971), Pl. 21, Fig. 59.
22. Buildings depicted on *toraṇas* in Sanchi, which O. Reuter (*Indische Paläste und Wohnhäuser*, Berlin, 1925, p. 14) understood as palaces, had been correctly identified as city-gates by A.K. Coomaraswamy, 'Early Indian Architecture, I. Cities and City-gates', etc., in *Eastern Art*, Vol. 2, (Philadelphia, 1930), pp. 209-25.
23. H. Härtel, 'Some Results of the Excavations at Sonkh—A Preliminary report' in *German Scholars in India*, Vol. 2 (New Delhi, 1976), pp. 69-99 = The Excavations at Sonkh. An Exhibition of the National Museum, New Delhi, 1977; see also C. Margabandhu, 'Houses of the Early Historic Period in North India: A New Evidence' in *Journal of the Archaeological Society of Bombay* (Dr. Bhagvanlal Indraji Memorial Volume), Vol. 56-59, 1981-84, Bombay, 1986, pp. 227-34.
24. Reprod. in: Härtel, 1976, *op. cit.* (n. 23), Fig. 28; Margabandhu, 1981-86, *op. cit.* (n. 23), Fig. D; H. Härtel, 'Pottery of Mathura' in *Mathura, the Cultural Heritage*, ed. D.M. Srinivasan, (New Delhi, 1989), pp. 181-92, Pl. 20. V.B.
25. A detailed list of publication on the results of excavations of Indian cities is included in D. Schlingloff 1969, *op. cit.* (n. 10).
26. J. Marshall, 'Excavations of Bhita' in *Annual Report of the Archaeological Survey of India, 1911-12* (Calcutta 1918-19), 1, pp. 29-94.
27. J. Marshall, *1911-12*, *op. cit.* (n. 26), Fig. 23, 48, 49, 69, 92 presents several types of pinnacles found in Bhita belonging to different excavated levels from "pre-Kushāṇa" to "Gupta". It has to be pointed out here, that their shape corresponds to that in paintings from Ajanta. While the old paintings depict the form of a pot or a conical finial with two or three flat rings in the upper part, the paintings of the Gupta-period show us elaborated pinnacles decorated with loads of cylindrical mouldings. Cf. H. Härtel 1976, *op. cit.* (n. 23), Fig. 6.
28. *op. cit.* (n. 26), p. 31.
29. *op. cit.* (n. 26), p. 33.
30. See A.K. Coomaraswamy, 'Early Indian Architecture: III. Palaces' in *Eastern Art*, Vol. 3 (Philadelphia, 1931), pp. 181-217, see p. 193; see also D. Schlingloff 1969, *op. cit.* (n. 10), p. 25.
31. Recognizable in heavy stone-foundations, see J. Marshall *1911-12*, *op. cit.* (n. 26), p. 33.
32. Archaeologists found an especially big number of seals, seal-prints and coins in the areas of storeyed buildings pointing at high trade activity, see Marshall *1911-12*, *op. cit.* (n. 26), p. 33.
33. O. Reuter 1925, *op. cit.* (n. 22), pp. 2-3; J. Marshall *1911-12*, *op. cit.* (n. 26), p. 31.
34. *Dhammapadaṭṭhakathā* XVI, 9: *so aparabhāge satthu dhammadesanaṁ sutvā āvāsadāne ānisaṁsaṁ sallakkhetvā isipatana-mahāvihāre chatūhi gabbhehi paṭimaṇḍitaṁ chatussālaṁ kāretvā mañchapīṭhādīni attharāpetvā taṁ āvāsaṁ niyyādento buddha-pamukkhassa saṁghassa dānaṁ datvā tathāgatassa dakkhin-odakaṁ adāsi* (ed. H.C. Norman, Vol. 3, p. 291) from this derived commentary on *Vimānavatthu* V, 2 (52); *isipatane mahāvihāre chatūhi gabbhehi paṭimaṇḍitaṁ chatussālaṁ kāretvā* etc. (*Dhammapālas Paramattha-Dipanī, Part IV, being the commentary on the Vimāna-Vatthu*, ed. E. Hardy, PTS, London, 1901, p. 220).
35. Reprod. in G. Yazdani, Vol. 3, 1946, *op. cit.* (n. 1), Pl. 16 b-c; *S.A.A.P.C.* 1-1081, No. 24, 4.
36. J. Griffiths, see n. 9.

37. Syed Ahmad, in Yazdani, Vol. 3, 1946, *op. cit.* (n. 1), Pl. 16 c.
38. Copy: J. Griffiths, 10, L: I.O. Vol. 73, No. 6058 [3644]; No. 10, K: I.S. 75-1887; I.O. Vol. 73, No. 6059 [3644].
39. Copy: J. Griffiths, 10, H: I.O., Vol. 71, No. 6005 [3644]; reprod. in G. Yazdani, Vol. 3, 1946, *op. cit.* (n. 1), Pl. 24 c.
40. Identified by D. Schlingloff, 'Die Ālteste Malerei des Buddhalebens', in: *Studien zum Jainismus und Buddhismus, Gedenkschrift für Ludwig Alsdorf* (Wiesbaden, 1981), pp. 181-98; D. Schlingloff, *Studies in the Ajanta Paintings, Identifications and interpretations* (Delhi, 1987), pp. 1-13; cf. D. Schlingloff, *Ajanta-Handbuch, op. cit.* (n. 8), No. 8 = X, 12.1.
41. J. Marshall and A. Foucher, *The Monuments of Sāñchī*, Vol. 2 (Calcutta, 1940), Pl. 16a, 18a, 29, 36c, 65b. For comparative analyses see: J. Auboyer & J.F. Enault., *La vie publique et privée dans l'Inde ancienne*, Tome VI (Paris, 1969), Pls. 20-25.
42. Depiction of the Great Departure, reprod. in M.N. Deshpande, 'The Rock-cut Caves of Pitalkhora in the Deccan', in *Ancient India*, Vol. 15 (New Delhi, 1959), Pl. 55 B; R. Parimoo, *Life of Buddha in Indian Sculpture* (New Delhi, 1982), Fig. 106.
43. Reprod. in V. Dehejia, *Early Buddhist Rock Temples* (London, 1972), Fig. 35; S. Nagaraju, *Buddhist Architecture of Western India, c. 250 B.C.-c. A.D. 300* (Delhi, 1981), Pl. 8; H. Plaeschke, *Indische Felsentempel und Höhlenklöster, Ajaṇṭā und Elūrā* (Leipzig, 1982), Pl. 28; *S.A.A.P.C.*, 1-1081, No. 34, 21-28.
44. Reprod. in J. Griffiths 1898, *op. cit.* (n. 4), Vol. 1, Pl. 37; G. Yazdani, Vol. 3, 1946, *op. cit.* (n. 1). Pl. 15 a; *S.A.A.P.C.*, 1-1081, No. 23, 49, No. 24.
45. 9. H: I.S. 137-1885, I.O., Vol. 70, No. 5962 [3633] = J. Griffiths 1896, *op. cit.* (n. 4), Pl. 37.
46. G. Yazdani, Vol. 3, 1946, *op. cit.* (n. 1), p. 16.
47. D. Schlingloff, *Ajanta-Handbuch, op. cit.* (n. 8), No. 2 = IX, 11, 2.
48. See H. Grassmann, *Wörterbuch rum Rig-Veda* (Leipzig, 1873), p. 1290.
49. *Mānasāra*, 18, ed. P.K. Acharya, (London, 1934, repr. New Delhi, 1979), pp. 127-42; transl. *Architecture of Manasara*, transl. by P.K. Acharya, (London, 1933, repr. New Delhi, 1980), pp. 199-221; cf. P.K. Acharya, *An Encyclopaedia of Hindu Architecture* (London, 1946, repr. New Delhi, 1979). pp. 461-64.
50. *Somā-pūshaṇā rajaso vimānaṁ sapta-chakraṁ ratham aviśvaminvaṁ / vishūvṛitaṁ manasā yujyamānaṁ taṁ jinvatho vṛishaṇā paṁcha-raśimaṁ //* ed. F.M. Müller, 2nd ed. (London, 1890), Vol. 2, p. 118.
51. *MBh.* 3. 275. 17, ed. Vol. 3, p. 954: *tato devo viśuddhātmā vimānena chaturmukhaḥ / pitāmaho jagat-srashṭā darśayāmāsa rāghavam //* or 3. 43, 28, ed. Vol. 3, p. 146: *so=darśana-pathaṁ yātvā martyānāṁ bhūmi-chāriṇām / dadarś=ādbhūta-rūpāṇi vimānāni sahasraśaḥ //* 3.162.3, ed. Vol. 3, p. 550: *taṁ samantād=anuyayur=gandharv-āpsarasas=tathā / vimānaiḥ sūrya-saṁkāśair deva-rājam=ariṁdamam //* 1.57. 23-24, ed. Vol. 1. p. 245: *dev-opabhogyaṁ divyaṁ cha ākāśe sphāṭikaṁ mahat / ākāśa-gaṁ tvāṁ mad-dattaṁ vimānam=upapatsyate // tvam=ekaḥ sarva-martyeshu vimāna- varam=āsthitaḥ/ charishyasy=uparistho vai devo vigrahavān=iva //*
52. *MBh.* 3.275.52, ed. Vol. 3, p. 957: *pushpakeṇa vimānena khechareṇa virājatā / kāma-gena yathā mukhyair=amātyaiḥ saṁvṛito vaśī //*
53. *MBh.* 1.1.89, ed. Vol. 1, p. 14: *vimāna-pratimāṁ ch=āpi mayena sukṛitāṁ sabhām / pāṇḍavānām=upahṛitāṁ sa dṛishṭvā paryatapyata //*; 2.1.12, ed. Vol. 2, p. 5: *pratigṛihya tu tad vākyaṁ saṁprahṛishṭo mayas=tadā / vimāna-pratimāṁ chakre pāṇḍavasya sabhāṁ mudā;* 5.149.77, ed. Vol. 5, p. 534: *śibirāṇi mahārāṇi rājñāṁ tatra pṛithak pṛithak / vimānān=īva rājendra nivishṭāni mahītale //*
54. *MBh.* 5.116.19, Vol. 5, p. 431: *harmyeshu ramaṇīyeshu prāsāda-śikhareshu cha / vātāyana-vimāneshu tathā garbha-gṛiheshu cha //*

55. *MBh.* 13, 54, 2-3, ed. Vol. 13, p. 320: *tato dadarśa nṛipatiḥ prāsādaṁ sarva-kāñchanam / maṇi-stambha-sahasr-āḍhyaṁ gandharva-nagar-opamam/ tatra divyān=abhiprāyān dadarśa kuśikas=tadā// parvatān ramya-sānūṁś=cha nalīnīś=cha sa-paṅkajāḥ/ chitraśālāś=cha vividhās= toraṇāni cha bhārata/ śādval-opachitāṁ bhūmiṁ tathā kāñchana-kuṭṭimām//*
56. *Rāmāyaṇa*, 2. 53. 9, ed. Vol. 2, p. 319: *harmyair vimānaiḥ prāsādair=avekshya ratham=āgataṁ hāhā-kāra-kṛitā nāryo rām-ādarśana-karśitāḥ//*
57. *Rāmāyaṇa*, 3.30.4, ed. Vol. 3, p. 154: *sā dadarśa vimān-āgre rāvaṇaṁ dīpta-tejasam/up-opavishṭaṁ sachivair marudbhir=iva vāsavam //*
58. *Rāmāyaṇa*, 3.46.6, ed. Vol. 3, p. 240: *yasya tat pushpakaṁ nāma vimānaṁ kāma-gaṁ śubham/ vīryād=āvarjitaṁ bhadre yena yāmi vihāyasam //* 6.109,9 ed. Vol. 6, p. 799: *pushpakaṁ nāma bhadraṁ te vimānaṁ sūrya-saṁnibhaṁ/mama bhrātuḥ kuberasya rāvaṇen=āhṛitaṁ balāt //etc.*
59. *Purāṇa-Index*, ed. V. R. Ramacandra Dikshitar, Vol. 1-3 (Madras, 1951-55) contains a list of passages with the word *vimāna* in its different meanings (Vol. 3, pp. 251-52).
60. *Raghuvaṁśa*, 12.104, ed. A. Scharpé, *Kālidāsa-Lexicon*, Vol. 1, part 4 (Brugge, 1964), p. 200; *raghu-patir api jātavedo-viśuddhāṁ pragṛihya priyāṁ priya-suhṛidi vibhīshaṇe saṁgamayya śriyaṁ vairiṇaḥ/ ravi-suta-sahitena ten=ānuyātaḥ sa saumitriṇā bhuja-vijita-vimāna-ratn-ādhirūḍhaḥ pratasthe purīm //* 13.1, ed. p. 201: *ath-ātmanaḥ śabda-guṇaṁ guṇa-jñaḥ padaṁ vimānena vigāhamānaḥ / ratn-ākaraṁ vīkshya mithaḥ sa jāyāṁ rām-ābhidhāno harir ity=uvācha //* etc.
61. *Kumārsaṁbhava*, 2.45, ed. A. Scharpé, *op. cit.* (n. 60), Vol. 1, part 3 (Brugge, 1958), p. 35: *bhuvan-ālokana-prītiḥ svargibhir n=ānubhūyate / khilī bhūte vimānānāṁ tad=āpāta-bhayāt pathi //*, 7. 40, ed. p. 106: *tato gaṇaiḥ śūla-bhṛitaḥ puro-gair udīrito maṅgala-tūrya-ghoshaḥ/ vimāna-śṛiṅgāṇy=avagāhamānaḥ śaśaṁsa sev-āvasaraṁ surebhyaḥ//*
62. *Meghadūta*, 63, c, d, ed. A. Scharpé, *op. cit.* (n. 60), Vol. 1, Part 3 (Brugge, 1958), p. 157: *yā vaḥ kāle vahati salil-odgāram uchchair vimānā / muktā-jāla-grathitam=alakaṁ kāmin=īv=ābhra-vṛindam //*
63. *Raghuvaṁśa*, 17, 9, ed. A. Scharpé, *op. cit.* (n. 60), p. 265: *te tasya kalpayāmāsur abhishekāya śilpibhiḥ / vimānaṁ navam=udvedi chatuḥ-stambha-pratishṭhitam //*
64. *Kathāsaritsāgara*, 29, 49, ed. Pandit P. K. Durgaprasad Parab, (Bombay, 1889), p. 149: *tataḥ sv-ochitam=āhāraṁ dātuṁ vijñāpya taṁ nṛipam / prāpy=ānujñāṁ vimāne tāṁ sānugāṁ yantra-nirmite // Samarāṅgaṇa-Sūtradhāra of Bhoja*, ed. T. Ganapati Sastri, rev. ed. V. S. Agrawala, Gaekwad's Oriental Series, No. 25 (Baroda, 1966), Chapter 31 contains descriptions of several peculiar machines. Together with *gaja-yantra* (elephant-machine), *vyomachāri vihaṁga-yantra* (flying wooden bird-machine), *dvārapāla-yantra* (doorkeeper-machine) or *yodha-yantra* (soldier-machine) we find also flying in the air wooden vimāna-machine *ākāśa-gāmi dāru-maya vimāna-yantra* (ed. p. 94).
65. W. Kirfel, *Die Kosmographie der Inder nach den Quellen dargestellt* (Bonn, 1920, Die Vaimānika), pp. 291-315.
66. *Kalpasūtra, Jinacharita*, 2, ed. H. Jacobi, = *Abhandlungen für die Kunde des Morgenlandes*, 7, (Leipzig, 1881), p. 33, transl. H. Jacobi, *Jaina Sūtras* (Oxford, 1884) = Sacred Books of the East, Vol. 22, p. 218; *Jinacharita*, 171, ed. p. 70, transl. p. 276; *Jinacarita*, 206, ed. p. 73, transl. p. 281.
67. *Vimānavatthu*, ed. E.R. Gooneratne, PTS (London, 1886).
68. *Vimānavatthuaṭṭhakathā*, ed. *op. cit.* (n. 34); transl.: *The Minor Anthologies of the Pali Canon*, Part IV, *Vimānavatthu: Stories of the Mansions*, new transl. of the verses and commentarial excerpts, by I.B. Horner, PTS, (London, 1974).
69. *Kena te tādiso vaṇṇo kena te idha mijjhati / uppajjanti cha te bhogā ye kechi manaso piyā //*

70. For instance the commentary on *Vv* 1. 1, ed. p. 6: *tato aparena samayena aññatarena rogena phuṭṭhā kālaṁ katvā tāvatiṁsa-bhavane dvādasa-yojanike kanaka-vimāne nibbatti*; on 1. 10. ed. p. 54; on 5.1 (51), ed. p. 217; 5.4 (54), 1, ed. p. 54 and commentary on it, ed. p. 244; 6.6 (70). 1, ed. p. 65, comm, p. 293; 6.8 (72), ed. p. 66, comm. p. 295; VI, 10 (74). 1, ed. p. 67, comm, p. 298, 7.1 (75). 1, ed. p. 69, comm, p. 299; comm, on 7.3 (77), p. 301; 7.5 (79). 1, ed. p. 79; 7.11 (85). 1, ed. p. 83, and its comm, p. 353.

71. Commentary on *Vv* 5.3 (53) ed. p. 234; *tassa vimānassa ābhā s-ātirekāni vīsati yojanāni pharitvā tiṭṭhati.*

72. *VvA* 1.5 ed. p. 33: *sā aparabhāge kālaṁ katvā tāvatiṁsa-bhavane yojana-satu-bbedhe kanaka-vimāne nibbatti.*

73. *Kanakavimāna*-comm. on *Vv* 1. 1, ed. p. 6; on 5.1 (51) p. 217; on 6.8 (72), p. 295; on 7.3 (77), p. 301.

74. *Vv* 4.1 (39) 2, ed. p. 37: *tamhā vimānā oruyha nimmitā ratanā mayā / ogāhasi sāla-vanaṁ pupphitaṁ sabbakālikaṁ //*

75. *Vv* 1.12.1, ed. p. 9: *veḷuriya-thambhaṁ ruchiraṁ pabhassaraṁ / vimānam = āruyha aneka-chittaṁ /* etc., 1.17.1, ed. p. 14; 7.10 (84), 15, ed. p. 79.

76. *Vv* 7.10 (84), 15, ed. p. 79: *veḷuriya-tthambā satam ussitāse / silappa vāḷassa cha āyataṁsā / masāragallā saha lohitaṅkā / thambā ime jotirasā mayāse //*

77. *Uchcham idaṁ maṇi-thūṇaṁ vimānaṁ / samantato dvādasa yojanāni / kūṭāgārā sattasatā uḷārā / veḷuriya-tthambhā ruchiratthatā subhā //* Vv 5.4 (54). 1, ed. p. 54 = 6.3 (67) 1, p. 64 = 7.3 (77). 1, p. 69 = 7.5 (79). 1, p. 79 = 7.11 (85). 1, p. 83.
For meaning of the word *kūṭāgāra* cf. inscription on one relief from Amaravati: reprod.: A. Ghosh and H. Sarkar, 'Beginnings of sculptural art in south-east India: a stele from Amaravati', *Ancient India*, nos. 20 and 21 (New Delhi, 1967), Pl. 40; V. Dehejia, 'Early Activity at Amaravati', in *Archives of Asian Art*, Vol. 23 (New York, 1969-70), p. 44, Fig. 7; P. Pal, (ed.) *Aspects of Indian Art* (Leiden, 1972), Pl. 2, b; cf. D. Schlingloff, 1987, *op. cit.* (n. 40), Pl. 276, n. 105.

78. *Vv* 7.10 (84). 16, ed. p. 79: *sahassa-tthambaṁ atul-ānubhāvaṁ / tesuppari sādhum idaṁ vimānaṁ / ratanattaraṁ kañchana-vedimissaṁ / tapanīya-paṭṭehi cha sādhu chhannaṁ //*

79. *Vv* 3.7. (35). 1, ed. p. 32: *phalika-rajata-hema-jāla-chchhannaṁ / vividha-vichitra-phalam addasaṁ surammaṁ / vyamhaṁ su-nimmitaṁ toraṇ-ūpapannaṁ / rāja-kūpakiṇṇam idaṁ subhaṁ vimānaṁ //*, see also commentary, ed. p. 160.

80. *Vv* 3.7. (35). 4. ff, ed. p. 33: *paduma-kumuda-uppala-kuvalayaṁ / yothikā bhaṇḍikā nojakā cha santi / sāla-kusumita-pupphitā asokā / vividha-dumagga-sugandha-sevitam idaṁ //* etc.

81. *Vv* 7.7. (81). 5 ff, ed. p. 73: *rammā cha te pokkharaṇī puthulā machchha-sevitā / achch-odakā vippasannā sovaṇṇa-vālikā santhatā //* etc.

82. *Vv* 7 (35). 8, p. 33: *yathā che me adhigatam=idaṁ vimānaṁ / koñcha-mayūra-chakora-saṁgha-charitaṁ / dibya-pila-vahaṁ sa-rāja-chiṇṇaṁ / dija-kāraṇḍava-kokil-ābhināditaṁ //.*

83. *Nimijātaka*, No. 541, ed. M.N. Fausböll, *The Jātaka Together with its Commentary, Being Tales of Anterior Births of Gautama Buddha* (Cambridge 1895-1913), Vol. 6, 1896, pp. 95-129; trasl. E.B. Cowell. *The Jātaka or Stories of the Buddha's Former Births, transl. from the Pāli by various hands* (Cambridge, 1895-1913), Vol. 6, 1907, transl. E.B. Cowell, W.H.D. Rouse, pp. 53-68.

84. *Nimijātaka*, v. 493, ed. p. 117: *pañcha-ṭhūpaṁ dissat=idaṁ vimānaṁ /*; v. 517, ed. p. 121: *pabhāsati idaṁ vyamhaṁ phaḷikāsu su-nimmitaṁ / nāri-vara-gaṇ-ākiṇṇaṁ kūṭ-āgara-var-ochitaṁ //* etc.

85. *Aṭṭhaṁsā thambhā*, *Nimijātaka*, v. 567-568, p. 127.

86. *Petavatthu*, ed. Prof. Minayeff, PTS, (London, 1888); comm.: *Dhammapāla's Paramattha-Dīpanī, Part III, being the commentary on the Peta-Vatthu*, ed. E. Hardy, PTS, (London, 1894); transl.:

Elucidation of the Intrinsic Meaning, so named the Commentary on the Peta-Stories by Dhammapāla, transl. Uba Kyaw, PTS, (London, 1980).

87. Comm. on *Pv* 1.10, ed. p. 47; on 4.11, ed. p. 271.
88. Comm. on *Pv* 3.3, ed. p. 197.
89. *Pv* 1.10.9, ed. p. 8, comm. ed. p. 51: *suchitta-rūpaṁ ruchiraṁ vimānaṁ te cha bhāsati/devate puchchhi-tāchikkha kissa kammass = idaṁ phalan ti //*, 2.11.2, ed. p. 29, comm. ed. p. 145 ff; 3.3.1, ed. p. 38, comm, ed. p. 187.
90. Pv 2.12, 1-4, ed. p. 30 also comm. ed. p. 155 ff: *sovaṇṇa-sopāna-phalakā sovaṇṇa-vāluka-saṁṭhitā / tattha sogandhiyo vaggū suchi-gandhā manoramā //nānā-rukkhehi saṁchchhaṇṇa gandhanānā-samīritā / nānā-paduma-saṁchhannā puṇḍarīka-samāgatā // surabhi saṁpavāyanti manuññā māluteritā / haṁsa-koñ chābhirudā chakkavāk-ābhikūjitā // nānā-dijagaṇ-ākiṇṇā nānā-saragaṇ-āyutā / nānā-phaladharā rukkhā nānā-phaladharā vanā //etc.*
91. *Divyāvadāna* 1, *A Collection of Early Buddhist Legends*, first ed. by E.B. Cowell, R.A. Neil (Cambridge, 1886), pp. 1-24, *vimāna* descr, p. 9.
92. A. Grünwedel, *Alt Kutscha* (Berlin, 1920), p. 33, Pl. 16, Fig. 30, 5.
93. A. Cunningham, 1879, *op. cit.* (n. 21), Pl. 16, 1; J. Burgess, *The Ancient Monuments, Temples and Sculptures of India*, Part 1 (London, 1897), Fig. 21; H. Zimmer, *The Art of Indian Asia* (New York, 1955), Fig 32 a; A. K. Coomaraswamy, 1956, *op. cit.* (n. 21), Pl. XI, Fig. 30; Debala Mitra, *Buddhist Monuments* (Calcutta, 1971), Pl. 4. Inscr. see H. Lüders, *Bharhut Inscriptions*, Corpus Inscriptionum Indicarum, Vol. 2, pt. 2 (Ootacamund, 1963), B 21, p. 93.
94. The analogy of an inscribed relief of Bharhut: Sanchi 1, west jamb of the southern gateway, reprod.: J. Marshall and A. Foucher, 1940, *op. cit.* (n. 41), Vol. 2, Pl. 18, a, see also Vol. 1, p. 227.
95. Reprod.: A. Grunwedel, *Buddhist Art in India* (London, 1901), pp. 60-61, Fig. 1 (tracing); L. Bachhofer, *Early Indian Sculpture* (New York, 1929), Pl. 59; J. Marshall and A. Foucher, 1940, *op. cit.* (n. 41), Vol. 1, pp.227-29, Vol. 2, Pl. 49; P. R. R. Rao, *Andhra Sculpture* (Hyderabad, 1984), Pl. 40.
96. Reprod. in: J. Marshall and A. Foucher, 1940, *op. cit.* (n. 41), Vol. 3, Pl. 72 (tracing). Note that in this tracing (and also in that of mine Fig. 12) the balustrade is shown without the carvings which embelished the discs: for this see Marshall and Foucher, Pls. 74-91; S. L. Huntington, *Art of Ancient India* (New York, 1985), Fig. 5.6.
97. The opinion of S. Nagaraju, (1981, *op. cit.* (n. 43), p. 90 and Fig. 15), deriving the so-called "hour-glas-motif" from a pillar with arrises, seems to be groundless, especially because Nagaraju puts a late pillar from Kanheri at the beginning of his comparisons. The motif of the "hour-glass" is undoubtedly a symplified form of a rail with half-medallions, which could have originated from an arrised pillar.
98. Reprod. J. Fergusson and J. Burgess, *The Cave Temples of India* (London, 1880, repr. Delhi, 1969), Fig. 63 (tracing); N. Rameshan, *Glimpses of Buddhism* (Hyderadabad, 1961), Pl. 35; H. G. Franz, *Buddhistische Kunst Indiens* (Leipzig, 1965), Pl. 87; V. Dehejia, 1972, *op. cit.* (n. 43), Fig. 75; Huntington, 1985, *op. cit.* (n. 96), Fig. 9.16; *S.A.A.P.C.* 1-1086, no. 88-2,9,14,17.
99. Cf. reprod. L. Bachhofer, 1929, *op. cit.* (n. 95), Pl. 70; Debala Mitra, 1971, *op. cit.* (n. 93), Pl. 109; V. Dehejia, 1972, *op. cit.* (n. 43), Pl. 48; M. K. Dhavalikar, *Late Hinayana Caves of Western India* (Poona, 1984), Pl. IVa; P. R. R. Rao, 1984, *op. cit.* (n. 95), Pl. 136; S. L. Huntington, 1985, *op. cit.* (n. 96), Fig. 9, 7.
100. A fragment of Fig. 14 can be seen in the upper left corner of a microfiche photography in *S.A.A.P.C.* 1-1081, No. 24, 14.
101. *S.A.A.P.C.* 1-1081, No. 24. 4.
102. North pillar of eastern gateway, upper panel of south face, reprod.: J. Marshall and A. Foucher, 1940, *op. cit.* (n. 41), Vol. 2, Pl. 49, c, 50, a; A. K. Coomaraswamy, 1931, *op. cit.* (n. 30), Fig. 8,

descr. p. 207; H. G. Franz, 1965, *op. cit.* (n. 98), Pl. 60; C. Sivaramamurti, *Indien kunst und Kultur* (Freiburg, 1975), Fig. 413; R. Parimoo, 1982, *op. cit.* (n. 42), Fig. 60; P. R. R. Rao, 1984, *op. cit.* (n. 95), Figs. 34 and 35.

103. Reprod. A. Cunningham, 1879, *op. cit.* (n. 21), Pl. 20; A. K. Coomaraswamy, 1956, *op. cit.* (n. 21), Pl. 15, Fig. 38.
104. Reprod. E. Waldschmidt, *Buddhistische Kunst in Indien* (Berlin, 1932), Fig. 79; J. Marshall and A. Foucher, 1940, *op. cit.* (n. 41), Vol. 2, Pl. 15; H. Zimmer, 1955, *op. cit.* (n. 93), Pl. 23; M. Hallade, *Indien. Gandhāra, Begegnung zwischen Orient und Okzident* (München, 1968), Fig. 80; C. Sivaramamurti, 1975, *op. cit.* (n. 102), Fig. 412; P. R. R. Rao, 1984, *op. cit.*(n. 95), Fig. 6.
105. Reprod. in G. Yazdani, Vol. 3, 1946, *op. cit.* (n. 1), Pl. 17 a, tracing by Syed Ahmed; *S.A.A.P.C.* 1-1081, No. 24,7-9. Interpret. D. Schlingloff, *Ajanta-Handbuch*, *op. cit.* (n. 8), Udaya, No. 5.=IX, 11, 5, see also D. Schlingloff, 'A Fortified Palace in Ancient Painting' in Dr. M. S. Nagaraja Rao Felicitation Volume (forthcoming).
106. Reprod. in *S.A.A.P.C.* 1-1081, no. 23, 42-44; copy; J. Griffiths, 1896, *op. cit.* (n. 4), Vol. 2, Pl. 137.
107. O. Reuter, 1925, *op. cit.* (n. 22), p. 8: "Es dürfte konstruktiv kaum möglich sein, den Tschaitja von Karli als hölzernen Freibau hinzustellen. Der Schub des Bohlensparrendaches, der durch keinerlei Binderbalken aufgehoben wird, muss freistehende, nicht in den Boden eingerahmte Stützen, wie sie in Karli und den übrigen jüngeren Felstschaitjas angenommen sind, einfach auseinanderdrücken." Cf. K. Sommer, 'Die konstruktiven Grundlagen des Bogens in Dach und Giebel der Altindischen Baukunst' in *Architectura*, 1, 6 (Leipzig, 1934), (Diss., 1934, Technische Universität, Dresden).
108. P. Brown, *Indian architecture (Buddhist & Hindu Periods)*, first ed. 1942, (Bombay, 1959), Pl. 3, 4.
109. Reprod. Griffiths, 1896, *op. cit.* (n. 4), Pl. 41; Yazdani, Vol. 3, 1946, *op. cit.*(n. 1), Pls. 30-34.
110. Cf. J. Burgess, *Report on the Buddhist Cave Temples and their Inscriptions*, Archaeological Survey of Western India, Vol. 4 (London, 1883), repr. Varanasi, 1964, p. 67; Cf. G. Yazdani, Vol. 3, 1946, *op. cit.* (n. 1), pp. 32-37.
111. Reprod. G. Yazdani, Vol. 3, 1946, *op. cit.* (n. 1), Pl. 13; Debala Mitra, *Ajanta* (New Delhi, 1956), Pl. 9; R. S. Gupte and B. D. Mahajan, *Ajanta, Ellora and Aurangabad Caves* (Bombay, 1962), Pl. 26; V. Dehejiya, 1972, *op. cit.* (n. 43), Fig. 34; S. Nagaraju, 1981, *op. cit.* (n. 43), Pl. 7; M. K. Dhavalikar, 1984, *op. cit.* (n. 99), Pl. 1 a; P. R. R. Rao, 1984, *op. cit.* (n. 95), Pl. 7; *S.A.A.P.C.* 1-1081, No. 34,13-18.

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The suggestion of movement: a contribution to the study of chariot-shaped structures in Indian temple-architecture

Gerd J. R. Mevissen

South Indian temple architecture, after having reached the peak of unsurpassable grandeur in the 11th century A.D. with the construction of the two great *vimānas* at Thanjavur and Gangaikondacholapuram, entered a new stage of experimental activity in the beginning of the 12th century. One of the features then introduced for the first time was the incorporation of the idea of movement into the architectural layout. This conception found expression in the embellishment of the temple-base with stone wheels and draught-horses thus giving the immovable stone structure the shape of a huge chariot. The new *impetus* seems to have been provided by the *sthapatis* (architects) of Kulottuṅga I, the Eastern Chāḷukyan prince who ascended the newly-unified Chāḷukya-Choḷa throne in A.D. 1070 or 1071, thus establishing a new dynastic line.

Notwithstanding the fact that the special character of chariot-shaped structures has been widely acknowledged by many scholars, only a few studies have dealt with the subject in some detail discussing either the early development,[1] typological aspects[2] or geographical interdependences[3] of a limited number of stone chariots. However, a comprehensive study of the existing structures including the lesser-known monuments as well as descriptions of the different structural components of the stone chariots does not seem to have been published until now. The present paper will provide data for a differentiated typological classification of chariot-shaped structures, followed by a discussion of their geographical distribution and chronological development. Further, their religious context and functional relevance will be evaluated, eventually focusing on cosmological and mythological aspects in the iconography of the monuments thus attempting to reveal their symbolic meaning.

§ 1. TYPOLOGY

The corpus of the study consists of forty-one chariot-shaped structures listed below.[4] The typological classification proposed here is based solely on the structural part of the building to which the wheels are joined, *viz.*, *vimāna* (shrine), *maṇḍapa* (hall) or *sopāna* (stairs). Thus, three major types can be distinguished (I, II, III) which have further been divided into sub-types (A, B).[5]

The list of structures gives information on the following details:

(no.)	Locality, name of the temple or monument, taluk, district, state[6]	
	(a) direction faced by the temple or monument; (b) designation and location of the chariot-shaped structure within the temple compound or monument; (c) date of the chariot-shaped structure; (d) direction of the suggested movement of the chariot-shaped structure;	(e) number of wheels; (f) number of spokes or kind of embellishment; (g) number of draught-horses; (h) selected bibliographical references.

Within the respective types or sub-types, the structures have been arranged in their probable chronological order.

Type I. *Ratha-vimāna*

A shrine (*vimāna*) housing a sanctum sanctorum (*garbhagṛiha*) complete with basement (*upapīṭha, adhishṭhāna*), wall (*pāda*), entablature (*prastara*) and superstructure (*grīva, śikhara, stūpī*) is conceived as a chariot (*ratha*).[7] Generally two pairs of wheels are joined to the axles which, as in all other types, are located in the area of the sub-base (*upapīṭha*).

I.A	**CENTRAL SHRINE (*MŪLASTHĀNA*) OF A TEMPLE COMPLEX (2 nos.)**	
(1)	Melakkadambur, Amṛitaghaṭeśvara temple, Chidambaram, S. Arcot, TN	
Pls. 32.1, 2	(a) east; (b) base of *vimāna*; (c) before 43rd year of Kulottuṅga I (*c.* A.D. 1114); (d) east;	(e) 4; (f) 12, undecorated; (g) 2; (h) Balasubrahmanyam 1963: pp. 47-53, Figs. 35-54; Balasubrahmanyam 1979: pp. 118-25, Pls. 99-111; Srinivasan 1983: pp. 296-8, Pls. 327-31; Harle 1986: pp. 319-20; L'Hernault 1987: 6, 132, ph. introd. 9.
(2)	Konarak, Sūrya temple, Puri, O	
	(a) east; (b) base of *vimāna*, *maṇḍapa* and eastern *sopāna*; (c) reigṇ of Narasiṁha I (A.D. 1238-64), completed probably A.D. 1258; (d) east;	(e) 24; (f) 16, 8 thin (beaded) and 8 broad (roughly diamond-shaped), profusely decorated; (g) 7, 3 on the northern and 4 on the southern flank of the staircase; (h) Mitra 1976; Boner/Śarmā/Dās 1972; Donaldson 1986: pp. 592-628, Figs. 1333-1403; Harle 1986: pp. 250-3, Figs. 193-7; Malville 1989.

Both temples face east. The wheels are attached to the base of the *vimāna* and, in the case of (2), where twelve pairs of wheels are present, also to the bases of the *mahāmaṇḍapa* and the platform in front. The *ardhamaṇḍapa* of (1) and the flight of stairs in front of (2) are flanked by two and seven horses respectively.

I.B	**SUBSIDIARY SHRINE IN A TEMPLE COMPLEX; ROADSIDE SHRINE; MEMORIAL MONUMENT** (8 nos.)	
(3)	Thiruvarur, Tyāgarāja temple compound, Nagapattinam, Thanjavur,TN	
Pls. 32.3, 4	(a) east; (b) Maṉunīti Choḻa shrine, north-east of main shrine outside of 3rd *prākāra*, between eastern and north-eastern *gopuras*; (c) *c*. 13th cent.; (d) south;	(e) 4; (f) 48 (on north-eastern wheel 37); (g) 2 (modern); (h) Ponnusamy 1972: p. 77, Figs. 27-8; Balasubrahmanyam 1975: p. 275, Pls. 267-74, (Pl. 272: original horse); Kalidos 1984: pp. 162-3; Michell 1989: pp. 485-6.
(4)	Hampi-Vijayanagara, Viṭhala temple, Hospet, Bellary, K	
	(a) east; (b) Garuḍa shrine facing *mahāmaṇḍapa*, east of main shrine; (c) 1st half of 16th cent.; (d) west;	(e) 4; (f) none, disc-like, lotus and scroll design; (g) none, 2 elephants guarding stairs; (h) Fergusson 1910: pp. 401-3, Pl. XI; Longhurst 1917: pp. 128, 130-2, Fig. 60; Devakunjari 1983: pp. 66-7, Pl. XVI; Huntington 1985: p. 575, Figs. 23.1, 2, 4; Filliozat 1988: pp. 26-7, Pls. 42-4.
(5)	Tadpatri, Veṅkaṭarāmaṇa temple, Tadpatri, Anantapur, AP	
Pl. 32.5	(a) east; (b) Garuḍa shrine, east of main shrine, between the two porches extending from *mahāmaṇḍapa* eastward; (c) mid-16th cent.; (d) west;	(e) 4; (f) none, disc-like with scroll design; (g) 2; (h) Kameswara Rao 1976: pp. 69-71, 76, 215, Pl. XXX,1; Michell 1989: pp. 395-6.
(6)	Somapalem, Chennakeśava temple, Madanapalle, Chittoor, AP	
Pl. 32.6	(a) east; (b) Garuḍa shrine, east of main shrine, in eastern part of *mahāmaṇḍapa*; (c) mid-16th cent.; (d) west;	(e) 4; (f) none, disc-like; (g) 2 (mutilated); (h) ARASI 1903-4, Pl. XXVI; Sampath 1980: pp. 85-91, Pl. XXXVII,3.

(7)	Madras, Vaḷḷuvar Koṭṭam, Madras, TN	
Pl. 32.7	(a) south; (b) memorial shrine for Tiruvaḷḷuvar; (c) completed A.D. 1976; (d) south;	(e) 8, 4 big and 4 small; (f) none, disc-like, lotus and scroll design; (g) none, 2 elephants on southern side; (h) Kalidos 1984: pp. 163-4, Fig. 10.
(8)	Near Melakkadambur, Roadside shrine, Chidambaram, South Arcot, TN	
Pl. 32.8	(a) east; (b) Gaṇapati shrine, west of road; (c) probably 20th cent.; (d) east;	(e) 4; (f) 6; (g) 2; (h) -.
(9)	Near Varanavasi, Roadside shrine, Udaiyarpalaiyam, Thiruchchirappalli, TN	
	(a) east; (b) Gaṇapati shrine, west of road; (c) probably 20th cent.; (d) east;	(e) 4; (f) 8; (g) 2; (h) -.
(10)	Madras, Madhya Kailāsa temple, Madras, TN[8]	
Pl. 32.9	(a) east; (b) Āditya shrine, north-west of main shrine; (c) completed A.D. 1991; (d) east;	(e) 2; (f) 16, 8 thin (beaded) and 8 broad (roughly diamond-shaped); (g) 2; (h) -.

The structures either face west (4-6), south (3, 7) or east (8-10). They all have two pairs of wheels except for (10) where only one pair is found, and (7) where two pairs of smaller wheels were added between the two major pairs. Draught-horses are conspicuously absent in (4) and (7). When present, their position is invariably in front of the whole structure except for (10), where they flank the *mukhamaṇḍapa*.

Type II. *Ratha-maṇḍapa*

A pillared hall (*maṇḍapa*) is conceived as a *ratha*. The part of the *maṇḍapa* which is flanked by the wheels and horses generally projects from the main part of the building and is of lesser width. Most of the *ratha-maṇḍapas* are provided with flights of stairs, either with one (26) or two lateral staircases (12, 14, 15, 20, 25, 27-29, 32), or with one in front (16, 17, 19, 21, 31). Three structures (11, 18, 33) are devoid of stairs; in (13), (23), (24) and (30) the present stairs appear to be later additions.

II.A	**SEPARATE STRUCTURE DETACHED FROM AXIAL *VIMĀNA/MAṆḌAPA* COMPLEX** (12 nos.)	
(11)	Chidambaram, Naṭarāja temple, Chidambaram, South Arcot, TN	
Pl. 32.10	(a) south; (b) *nṛittasabhā*, south of main shrine in 2nd *prākāra*; (c) reign of Kulottuṅga I (*c.* A.D. 1070-1122) or Kulottuṅga III (A.D. 1178-1218); (d) north;	(e) 2 (only top of western wheel now visible); (f) 28; (g) 2 (only head of eastern horse now visible); (h) Fergusson 1910: pp. 374-6; Somasundaram Pillai 1963: pp. 72-3 (K III); Natarajan 1974: p. 67, Pl. [11] (K I); Balasubrahmanyam 1979: pp. 21-2, Pl. 3 (K I); Swamy 1979: pp. 41, 58-65 (K III); Srinivasan 1983: pp. 317-9, Pl. 373 (K III); Kalidos 1984: p. 161 (K I); L'Hernault 1987: pp. 6-7, 132, ph. intr. 6, Pl. intr. III (K I); Michell 1989: p. 426 (K III).
(12)	Thiruvakkarai, Chandramaulīśvara temple, Tindivanam, South Arcot, TN	
Pl. 32.11	(a) east; (b) "100-pillared" *maṇḍapa*, north-east of main shrine in 2nd *prākāra*; (c) 2nd year of Kulottuṅga III (A.D. 1180); (d) east;	(e) 2; (f) 31 (south; northern wheel buried in earth); (g) 2; (h) Balasubrahmanyam 1979: pp. 300-1, Pl. 301; Srinivasan 1983: p. 319.
(13)	Kumbhakonam, Nāgeśvara temple, Kumbhakonam, Thanjavur, TN	
Pl. 32.12	(a) east; (b) Naṭarāja *maṇḍapa*, north-east of main shrine in 2nd *prākāra*; (c) reign of Kulottuṅga III; (d) south;	(e) 2; (f) 12, alternating with 12 standing Ādityas; (g) 2; (h) Srinivasan 1959: pp. 28-9, Figs. 1-2; Mahalingam 1967: pp. 38-9; Srinivasan 1983: pp. 316-7, Pls. 371-2.
(14)	Thiruppulivanam, Vyāghrapurīśvara temple, Kanchipuram, Chingleput, TN	
Pl. 32.13	(a) east; (b) *sabhāmaṇḍapa* north-east of main shrine, outside of 2nd *prākāra*; (c) reign of Kulottuṅga III or later; (d) south;	(e) 2; (f) 16; (g) 2 (no longer extant); (h) Gros/Nagaswamy 1970: pp. 56-62, Pl. XV; Balasubrahmanyam 1979: pp. 36-40.

(15)	Uttarakosamangai, Maṅgalanātha temple, Ramanathapuram, TN	
Pl. 32.14	(a) east; (b) Naṭarāja *maṇḍapa* in 2nd *prākāra*, north of main shrine; (c) probably reign of Māravarman Sundara Pāṇḍya I (A.D. 1216-38); (d) south;	(e) 2 (one lost); (f) 12, roughly diamond-shaped, undecorated; (g) 2; (h) Nambiar 1969: pp. 304-5 & Pls.; Kalidos 1984: p. 163.
(16)	Chidambaram, Naṭarāja temple, Chidambaram, South Arcot, TN	
Pl. 32.15	(a) south; (b) Pāṇḍya-nāyaka-*maṇḍapa*, now Subrahmaṇya temple, north-west of main shrine in 3rd *prākāra*; (c) reign of Māravarman Sundara Pāṇḍya I or Jātavarman Sundara Pāṇḍya I (A.D. 1251-68); (d) east;	(e) 2 (missing); (f) ?; (g) 2 (mutilated); (h) Natarajan 1974: pp. 68-9; Swamy 1979: pp. 59-60; Dhaky 1983: p. 331, Pls. 394-5; L'Hernault 1987: p. 132; Glasenapp 1928: Taf. 168.
(17)	Vriddhachalam, Vṛiddhagirīśvara temple, Vriddhachalam, South Arcot, TN	
Pl. 32.16	(a) east; (b) "*Chitramaṇḍapa*", north-east of main shrine in outer *prākāra*; (c) reign of Kopperuñjiṅga (*c.* A.D. 1243-79); (d) south;	(e) 2; (f) 20; (g) 2; (h) Mahalingam 1970: p. 41; Kalidos 1984: p. 161; Srinivasan 1985: p. 151.
(18)	Thirukkarukavur, Mullaivaṇanātha temple, Papanasam, Thanjavur, TN	
Pl. 32.17	(a) east; (b) *maṇḍapa* in north-east corner of 1st *prākāra*; (c) 13th cent. or later; (d) south;	(e) 2 (eastern one concealed); (f) 8, alternating with 8 standing Ādityas; (g) 2 (eastern one partly hidden); (h) Mahalingam 1970: p. 41; Chockalingam 1971: Pl. opp. p. 192 (mistakenly labelled "Sri Somanathaswamy Temple, Kizhapazhaiyarai").
(19)	Srirangam, Raṅganātha temple, Thiruchchirappalli, TN	
Pl. 32.18	(a) south; (b) centre of "1000-pillared" *maṇḍapa* in 4th *prākāra*, north-east of main shrine; (c) 13th cent. or later; (d) south;	(e) 4; (f) 12, alternating with 12 standing Ādityas; (g) 2; (h) Hari Rao 1967: pp. 36, 60.

(20)	Kunnandarkoyil, Parvatagirīśvara temple, Kulattur, Pudukkottai, TN	
Pl. 32.19	(a) east; (b) "100-pillared" *maṇḍapa*, south-east of main shrine; (c) *c.* 15th-16th cent.; (d) east;	(e) 2; (f) 12, alternating with 12 standing Ādityas; (g) 2; (h) Raghupathy 1983: pp. 27-8, Figs. 45-6.
(21)	Thiruvanaikkaval, Jambukeśvara temple, Thiruchchirappalli, TN	
	(a) west; (b) "1000-pillared" *maṇḍapa* in 3rd *prākāra*, north-west of main shrine; (c) *c.* 16th-17th cent.; (d) south;	(e) 2; (f) 12, alternating with 12 standing Ādityas; (g) 2; (h) -.
(22)	Sendamangalam, Āpatsahāyeśvara temple?, Thirukkoyilur, South Arcot, TN	
	The existence of a chariot-shaped structure could not be verified so far.	(h) Mahalingam 1970: p. 41; Soundara Rajan 1978: p. 128; Chandrakumar 1988: p. 65.

Most of the structures occupy a position north-east of the main shrine (12-15, 17-19), two are to the north-west (16, 21), one to the south-east (20) and one to the south (11) of the *mūlasthāna*. Seven of them face south (13-15, 17-19, 21), three east (12, 16, 20) and one north (11). In all cases the number of horses is two, as is the number of wheels with only one exception (19), where four wheels are found.

II.B	**STRUCTURE ATTACHED TO AXIAL *VIMĀNA/MAṆḌAPA* COMPLEX** (13 nos.)	
(23)	Tukkachchi, Āpatsahāyeśvara temple, Kumbhakonam, Thanjavur, TN	
Pl. 32.20	(a) east; (b) *agramaṇḍapa* attached to *mahāmaṇḍapa*; (c) after A.D. 1126 during reign of Vikrama Chōḷa (A.D. 1118-35) or Kulottuṅga II (A.D. 1133-50); (d) south;	(e) 2 (western one concealed); (f) 24; (g) 2 (western one partly hidden); (h) Balasubrahmanyam 1979: p. 170, Pl. 174, plan [III]; L'Hernault 1987: pp. 6, 132, ph. introd. 7, pl. introd. I.
(24)	Kilapalaiyarai, Somanātha temple, Kumbhakonam, Thanjavur, TN	
Pl. 32.21	(a) east; (b) *agramaṇḍapa* attached to *mahāmaṇḍapa*; (c) reign of Rājarāja II (A.D. 1146-73); (d) south;	(e) 2; (f) 32; (g) 2; (h) Balasubrahmanyam 1979: pp. 199-203, pl. 204-5; Srinivasan 1983: pp. 309-11; L'Hernault 1987: pp. 6-7, 132, ph. intr. 8, pl. intr. II.

(25)	Darasuram, Airāvateśvara temple, Kumbhakonam, Thanjavur, TN	
Pl. 32.22	(a) east; (b) *agramaṇḍapa* attached to *mahāmaṇḍapa*; (c) reign of Rājarāja II (A.D. 1146-73); (d) south;	(e) 2; (f) 32; (g) 2; (h) Sivaramamurti 1960: pp. 27-9; Balasubrahmanyam 1979: pp. 225-34, col.pl. 3, Pls. 226-8; Srinivasan 1983: p. 304, Pls. 341-5; Kalidos 1984: p. 161, Fig. 14; L'Hernault 1987: pp. 6-7, 54-6, 79-95, 132, ph. arc. 1, 7-9, 14-7, 38, ph. ico. 1-7, 44, pl. ico. I, II, pl. arc. II, X.
(26)	Tribhuvanam, Kampahareśvara temple, Kumbhakonam, Thanjavur, TN	
Pls. 32. 23, 24	(a) east; (b) *agramaṇḍapa* attached to *mahāmaṇḍapa*; (c) before A.D. 1212 during reign of Kulottuṅga III (A.D. 1178-1218); (d) south;	(e) 2 (one missing, one loose in southern *mālikā*); (f) 12, alternating with 12 standing Ādityas; (g) 2 (western horse loose in southern *mālikā*, eastern one mutilated); (h) Sarkar 1974: pp. 9, 26-7, 44, Pl. II; Balasubrahmanyam 1979: pp. 330-1, Pl. 325; Srinivasan 1983: pp. 312-7, Pl. 369; L'Hernault 1987: pp. 6, 132, ph. introd. 12.
(27)	Kumbhakonam, Śārṅgapāṇi temple, Kumbhakonam, Thanjavur, TN	
Pl. 32.25	(a) east; (b) *mahāmaṇḍapa* of main shrine; (c) probably reign of Kulottuṅga III; (d) east;	(e) 4; (f) 12, alternating with 12 dancing figures; (g) 2, as well as 4 elephants close to the wheels; (h) Mahalingam 1970: p. 42; Soundara Rajan 1978: p. 128, Fig. 18; Balasubrahmanyam 1979: pp. 196-9, Pls. 193-4.
28.	Thiruvalanjuli, Śveta Vināyaka temple, Kumbhakonam, Thanjavur, TN	
Pl. 32.26	(a) east; (b) *mukhamaṇḍapa* attached to *ardhamaṇḍapa*; (c) reign of Rājarāja III (A.D. 1216-60) or later; (d) south;	(e) 2; (f) *c.* 24 (estimated, since wheels and balustrade are carved from one stone); (g) 2; (h) ARSIE 1927-28: pp. 22-3, nos. 200-13, p. 54, para. 12; Chockalingam 1971: pp. 142-5 & Pls.

(29)	Chayavanam, Chhāyāvaneśvara temple, Sirkali, Thanjavur, TN	
Pl. 32.27	(a) east; (b) *mukhamaṇḍapa* attached to *mahāmaṇḍapa*; (c) *c.* late 13th cent. (?); (d) south;	(e) 2; (f) 19; (g) 2 (eastern one mutilated); (h) Chockalingam 1971: pp. 40-3 & Pl.
(30)	Simhachalam, Varāha-Narasiṁha temple, Visakhapatnam, AP	
Pl. 32.28	(a) west; (b) *mukhamaṇḍapa* attached to *mālikā* in north-eastern corner of 1st *prākāra*; (c) before A.D. 1268; (d) west;	(e) 4; (f) none, disc-like, profusely decorated; (g) 2; (h) Sundaram 1969: pp. 168-9, Fig. 13; Rajendra Prasad 1980: pp. 192-3, Fig. 54; Michell 1989: pp. 392-4.
(31)	Thiruvidaimarudur, Mahāliṅgeśvara temple, Kumbhakonam, Thanjavur, TN[9]	
Pl. 32.29	(a) east; (b) *mukhamaṇḍapa* attached to *mahāmaṇḍapa* of Subrahmaṇya shrine, northern 2nd *prākāra*; (c) *c.* 16th cent. or later; (d) east;	(e) 2; (f) 12, alternating with 12 standing Ādityas; (g) 2; (h) -.
(32)	Thanjavur, Rājarājeśvara temple, Thanjavur, TN	
Pls. 32. 30, 31	(a) east; (b) *mukhamaṇḍapa* attached to *mahāmaṇḍapa* of Subrahmaṇya shrine, north-west of main shrine; (c) *c.* 17th cent.; (d) east;	(e) 2 (missing; a loose wheel is stored in the Site Museum in southern *mālikā*); (f) 12, alternating with 12 Ādityas (on loose wheel); (g) 2; (h) Somasundaram Pillai 1958: pp. 12-3, Pl. opp. p. 13.
(33)	Orattanadu, Maṅgammāḷ Choultry, Orattanadu, Thanjavur, TN	
Pl. 32.32	(a) south; (b) *mukhamaṇḍapas* attached to both projecting wings of building; (c) *c.* 17th cent.; (d) south;	(e) 2 × 4; (f) 12, undecorated; (g) 2 × 2; (h) Kalidos 1984: p. 161.
(34)	Thiruvaiyaru, Pañchanādīśvara temple (?), Thanjavur, TN	
	The existence of a chariot-shaped structure could not be verified so far.	(h) Mahalingam 1970: p. 41 "*agramaṇḍapa*"; Soundara Rajan 1978: p. 128; Chandrakumar 1988: p. 65.
(35)	Kudumiyamalai, Śikhāgirīśvara temple (?), Kulattur, Pudukkottai, TN	
	The existence of a chariot-shaped structure could not be verified so far.	(h) Srinivasan 1985: p. 151; Sarkar 1974: p. 9.

Most of the structures are *agramaṇḍapas* with a projection on the south which is flanked by the wheels and horses (23-26); or *mukhamaṇḍapas* attached to other *maṇḍapas* (28, 29, 31-33) or to the *mālikā* (cloister) (30), either facing south (28, 29, 33), east (31-32) or west (30). In the Śārṅgapāṇi temple at Kumbhakonam (27) it is the east-facing *mahāmaṇḍapa* that has been conceived as a chariot. Repeatedly, this temple has been classified as a *ratha-vimāna*.[10] In fact the two pairs of wheels are joined to the western (rear) part of the *mahāmaṇḍapa* just below the *uttarāyana vāsal* (northern gate) and *dakshiṇāyana vāsal* (southern gate), while the horses are located further east flanking the foremost part of the *mahāmaṇḍapa*. The position of the wheels in the vicinity of the stairs leading up to the rear gates may explain the unusual presence of two pairs of elephants close to the wheels. Elephants are never employed as draught-animals[11] but are always associated with stairs when they appear near chariot-shaped temple structures (4, 13, 16, 23-26, 38, 41).

The number of wheels is generally two, except for (27), (30) and (33) where we find four wheels. The horses are placed just in front of the wheels in most cases; only in (28), (30) and (33) they have been placed in front of the whole structure.

Type III. *Ratha-sopāna*

A flight of stairs (*sopāna*) is designed in the form of a chariot. The wheels are attached to the balustrades or banisters flanking the steps. Only three of the examples (36, 40, 41) are original constructions.

III.A	**STAIRS LEADING UP TO A *MAṆḌAPA*** (4 nos.)	
(36)	Thirupparankunram, Subrahmaṇya temple, Madurai, TN	
Pl. 32.33	(a) north; (b) flanking the steps to *kalyāṇamaṇḍapa*; (c) 17th-18th cent.; (d) north;	(e) 4; (f) none, disc-like; (g) 2; (h) Kalidos 1984: p. 161.
(37)	Ariyalur, Kodaṇḍarāma temple, Udaiyarpalaiyam, Thiruchchirappalli, TN	
Pl. 32.34	(a) east; (b) flanking the steps to *mahāmaṇḍapa*; (c) modern construction re-using wheels and horses from 17th-18th cent; (d) east;	(e) 4 (2 loose, lying nearby); (f) 6, undecorated; (g) 2; (h) -.
(38)	Kumbhakonam, Chakrapāṇi temple, Kumbhakonam, Thanjavur, TN	
32.35	(a) east; (b) flanking the steps to *mahāmaṇḍapa* of Vijayavaḷḷi Tāyār shrine; (c) probably 20th cent.; (d) east;	(e) 2 (heavily plastered); (f) 8; (g) none, 2 elephants instead; (h) -.
(39)	Thanjavur, Thanjavur Art Gallery, Thanjavur, TN	
Pl. 32.36	(a) north-east; (b) in front of the main entrance; (c) modern construction re-using wheels from *c.* 13th-15th cent.; (d) north-east;	(e) 2; (f) 12, alternating with 12 Ādityas; (g) none; (h) -.

In (36), two stone sculptures, each in the form of a horse pulling two wheels, have been placed on the balustrades. The *sopāna* of (37) appears to be a rearrangement of an earlier structure which originally consisted of four wheels and two horses; however, only the horses and two wheels were used for the present balustrades, while the remaining two wheels lie nearby. The wheels and elephants of (38) seem to have been added only in the 20th century. The two wheels adorning the entrance-stairway to the Thanjavur Art Gallery (39) are said to have been brought from Darasuram.[12] However, since the stone chariot there (25) is complete and nothing is known of a second one, these wheels may have originally belonged to another structure, most probably to a *ratha-maṇḍapa*.

III.B	**STAIRS LEADING UP TO A *GOPURA* (2 nos.)**	
(40)	Taramangalam, Kailāsanātha temple, Omalur, Salem, TN	
	(a) west; (b) main (western) *gopura*, flanking the steps leading down into the 2nd *prākāra*; (c) *c.* 17th cent.; (d) east;	(e) 2; (f) none, disc-like, undecorated; (g) 2; (h) Mahalingam 1970: p. 41; Nambiar 1968: pp. 458-9 & Pls.
(41)	Thiruvellarai, Puṇḍarīkāksha temple, Lalgudi, Thiruchchirappalli, TN	
Pl. 32.37	(a) east; (b) flanking steps leading up to main northern *gopura*; (c) 17th-18th cent.; (d) north;	(e) 4; (f) none, disc-like; (g) 2; (h) Soundara Rajan [1980]: p. 36.

The two structures differ chiefly in two respects: in (40) the *ratha-sopāna* is located on the side of the *gopura* facing towards the temple, while in (41) it is found on the outside. The latter has four wheels and the former only two.

§ 2. GEOGRAPHY and CHRONOLOGY

The geographical distribution (see Map and Table 1) reveals that chariot-shaped structures in temples are a purely Dravidian phenomenon: of the forty-one structures, thirty-six (88%) can be found in Tamilnadu. Thirty (73%) are located in Choḻamaṇḍalam, the heartland of the Choḻa Empire, comprising the modern districts of Thanjavur, South Arcot, Thiruchchirappalli and Pudukkottai. Of these, ten are concentrated in or within a radius of 12 km. around Kumbhakonam (13, 18, 23-28, 31, 38). Six (15%) are situated in other parts of Tamilnadu (7, 10, 14, 15, 36, 40), while only five (12%) are known to exist further north in the states of Andhra Pradesh (5, 6, 30), Karnataka (4) and Orissa (2). Peculiarly enough, not a single chariot-shaped structure has been reported from Kerala so far.

Twenty structures can be safely assigned to the 12th and 13th centuries, twelve date from the 15th through 18th centuries and five have been erected in the 20th century (Table 2).

Regarding the geographical distribution and the chronological development of the different types it may be noticed that certain sub-types are confined to certain regions.

Map GEOGRAPHICAL DISTRIBUTION OF TYPES

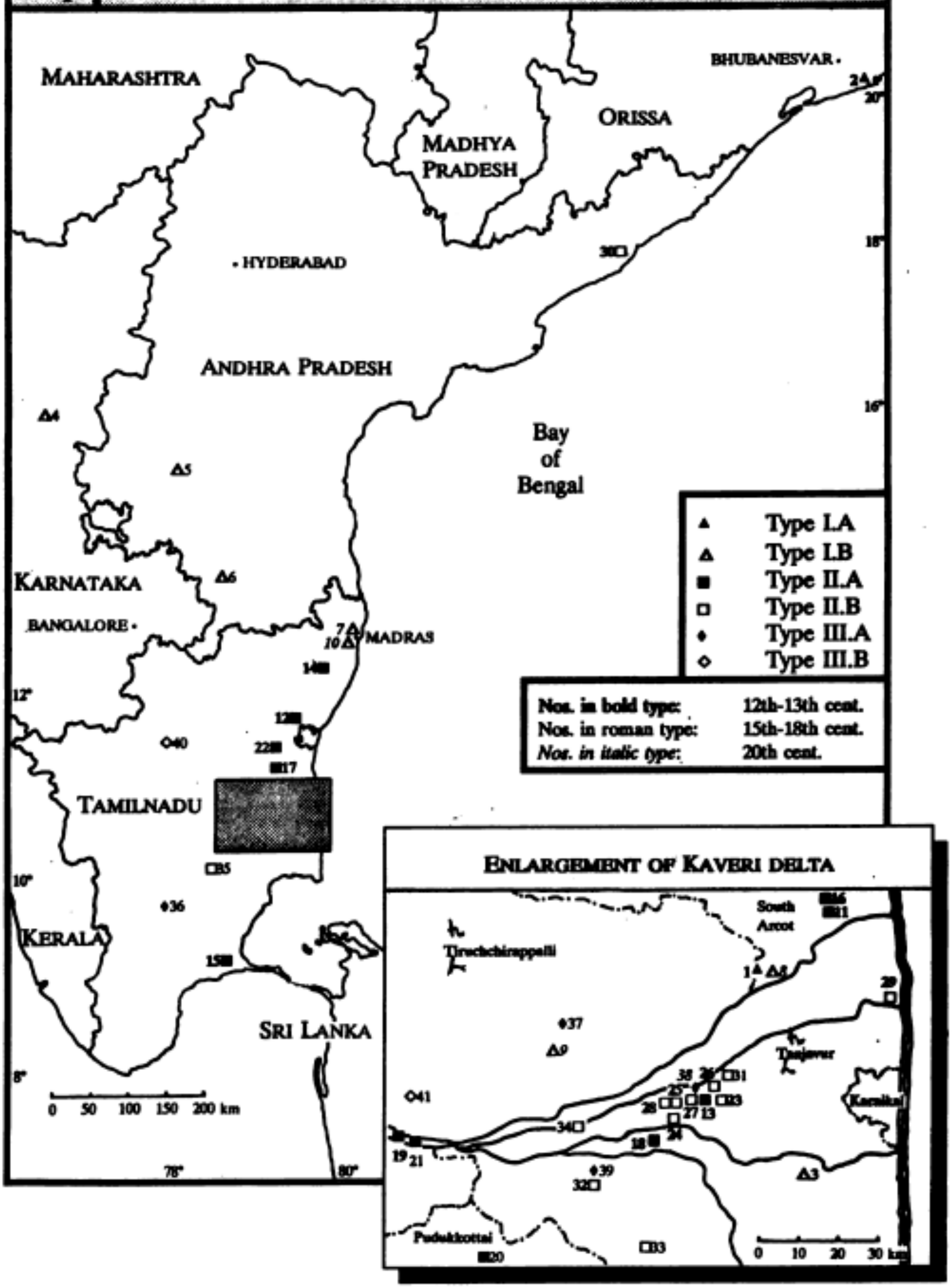

TABLE 1		**GEOGRAPHICAL DISTRIBUTION OF TYPES**			
		Tamilnadu	**Andhra**	**Karnataka**	**Orissa**
Type I	**A**	1			2
	B	3, 7, 8, 9, 10	5, 6	4	
Type II	**A**	11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22			
	B	23,24,25,26,27,28,29,31,32,33,34,35	30		
Type III	**A**	36, 37, 38, 39			
	B	40, 41			

The earliest surviving temple of the whole series (1), built by Kulottuṅga I in or before A.D. 1114,[13] belongs to sub-type I.A. It is located north of the river Kaveri. This prototype did not gain acceptance in the core of Choḻamaṇḍalam south of the Kaveri nor in any other region but served as a model for the only chariot-shaped temple in the Orissan style, the celebrated Sūrya *deul* at Konarak (2) which was built about 150 years later by the Eastern Gaṅga king Narasiṁhadeva I who, being a remote descendant of Kulottuṅga I, was also linked to the Choḻa court by matrimonial ties.[14]

Sub-type I.B, although it originated in the Kaveri delta in the 13th century (3), did not find subsequent acceptance south of the Kaveri. It became popular during the Vijayanagara period in the Andhra/Karnataka region (4-6) and returned to the northern parts of Tamilnadu only in the 20th century (7-10).

TABLE 2		**CHRONOLOGICAL DISTRIBUTION OF TYPES***		
		12th-13th cent.	**15th-18th cent.**	**20th cent.**
Type I	**A**	1, 2		
	B	3	4, 5, 6	7, 8, 9, 10
Type II	**A**	11, 12, 13, 14, 15, 16, 17, 18, 19	20, 21	
	B	23, 24, 25, 26, 27, 28, 29, 30	31, 32, 33	
Type III	**A**		36, 37	38
	B		40, 41	

* Nos. 22, 34, 35 and 39 are not included.

Sub-type II.A, created at Chidambaram, just north of the Kaveri, in the beginning of the 12th century (11), flourished in Toṇḍaimaṇḍalam (modern South Arcot and Chingleput districts) in the 13th century (12, 14, 16, 17) and is rarely found in the Kaveri delta (13, 18). Subsequently, it spread to the western part of Chol̤amaṇḍalam (19-21). The only known example of a stone chariot in Pāṇḍināḍu at Uttarakosamangai (15) also belongs to this sub-type. It was probably built by Māravarmaṇ Sundara Pāṇḍya I (A.D. 1216-38) who invaded Chol̤amaṇḍalam, defeated Rājarāja III (A.D. 1216-60) and crowned himself at Pal̤aiyār̤ai/Āyirattaḷi near Kumbhakonam (Kuḍamūkku), 'the then hub of Choḷa power.'[15] Perhaps the Pāṇḍya king was so impressed by the numerous *ratha-maṇḍapas* in the vicinity of the city (13, 23-27) that he initated this new Chol̤a idiom in his home territory. He, or his successor Jātavarman̤ Sundara Pāṇḍya I (A.D. 1251-68), probably built the Pāṇḍya-nāyaka-*maṇḍapa* at Chidambaram (16) as well. Another opponent of the Chol̤as, the Kāḍava chieftain Kopperuñjiṅga (*c.* A.D. 1243-79), who imprisoned Rājarāja III in Sendamangalam,[16] was responsible for the erection of the stone chariot at Vriddhachalam (17) and, perhaps, also at Sendamangalam (22).

The distributional pattern of sub-type II.B reveals a striking coherence. Of the thirteen structures, eleven (85%) are located south of the Kaveri in District Thanjavur (23-29, 31-34). The bulk (54%) is concentrated in and around Kumbhakonam (23-28, 31). A few km. south of the city lies Pal̤aiyār̤ai (Muḍikoṇḍachol̤apuram, Āyirattali), supposedly the ancient capital of the Chol̤as before Vijayālaya conquered Tañjai (Thanjavur).[17] Although the Later Chol̤as had their official royal residence at Gangaikondacholapuram, most of the kings continued to use Pal̤aiyār̤ai as an ancillary capital where they maintained royal palaces including a coronation-hall and also kept their families,[18] strongly guarded by a series of army-cantonments surrounding the palace area.[19] Thus it appears that this nerve-centre of the Chol̤a administrative and courtly life, combining the two functions of royal residence and royal performance, was the focal point for the development of the attached *ratha-maṇḍapa*-type. Significantly, the latest structure in the group (33) is a palace-like residence erected in the Nāyaka period.

The only *ratha-maṇḍapa* outside Chol̤amaṇḍalam in the temple at Simhachalam (30) was built before A.D. 1268 by the order of Narasiṁha I. Obviously, the Eastern Gaṅga king and his masterbuilders were inspired not only by the *ratha-vimāna* type (*vide supra*) but also by the more popular *ratha-maṇḍapas*.

Type III cannot be traced in the Chol̤a period. It appears to be a late derivation of the two earlier types. In all probability the *ardhamaṇḍapa* in front of the *ratha-vimāna* at Melakkadambur, now obstructed by a later *maṇḍapa*, was originally provided with stairs on the eastern side. The possibility to ascend the wheeled platform of a *ratha-maṇḍapa* by way of stairs did neither exist in the earliest example, the *nṛittasabhā* at Chidambaram[20] (11) of the time of Kulottuṅga I, nor at Tukkachchi (23) of the time of

Vikrama Choḷa, nor at Kilapalaiyarai (24) of the early years of Rājarāja II.[21] It was introduced by Rājarāja II at Darasuram (25) where, for the first time, the two lateral stairs are coeval with the main body of a *ratha-maṇḍapa*. Subsequently, most *ratha-maṇḍapas* were provided with either lateral or frontal stairs, although the stairless variety also continued (13, 18, 30, 33). With the introduction of *ratha-sopānas* in the Nāyaka period a two-fold shift of emphasis seems to have taken place: on the one hand from the state of *being* on the wheeled platform to the act of *ascending* it, exemplified by sub-type III.A (36-38), and on the other hand—as a belated parallelism to the Later Choḷa development of the *gopura* taking over as the dominant feature of the temple complex—from the conception of a movable *vimāna* to that of a movable *gopura*, visible in sub-type III.B (40-41).

The tradition of building chariot-shaped structures in the form of *ratha-vimānas* and *ratha-maṇḍapas* commenced from the unification of the Chāḷukya and Choḷa thrones by Kulottuṅga I. It was handed down within the family of the Chāḷukya-Choḷas for some 150 years resulting in the construction of at least a dozen stone chariots in the Choḷa homeland (Table 3). The decline of the dynasty around the middle of the 13th century, marked by the rise of unruly subordinates (Kāḍavarāyas) and the regaining of power by subjugated neighbours (Pāṇḍyas), spread the tradition across the borders of Choḷamaṇḍalam to Toṇḍaināḍu, Pāṇḍināḍu and Orissa. This process of dissemination may well have been fostered by consanguinity and matrimonial relations, especially in the case of the Eastern Gaṅgas.[22]

TABLE 3	**DYNASTIC DISTRIBUTION OF TYPES***					
Type	**I**		**II**		**III**	
	A	**B**	**A**	**B**	**A**	**B**
Choḷa	1	3	11, 12, 13, 14, 18(?)	23, 24, 25, 26, 27, 28, 29(?)		
Pāṇḍya			15, 16, 19(?)			
Kāḍava			17			
Eastern Gaṅga	2			30		
Tuḷuva		4, 5, 6				
Nāyaka		–	20, 21	31, 32, 33	36,37	40, 41
modern		7, 8, 9, 10			38	

* Nos. 22, 34, 35 and 39 are not included.

After a lapse of more than 200 years, the tradition was revitalized by the powerful Tuḷuva king Kṛishṇadeva Rāya (A.D. 1509-29) and his successors Achyutadeva Rāya (A.D. 1529-42) and Sadāśiva (A.D. 1542-76), of the third dynasty of the Vijayanagara empire, who held sway over the whole of south India thus uniting the *drāviḍa* countries culturally and politically once again. The Nāyakas of Madurai and Thanjavur inherited the tradition and extended the typological repertoire by adding the *ratha-sopāna* variety.[23] Finally, modern architects of the 20th century employed the historical heritage for ambitious semi-secular and religious projects (7, 10) as well as for small rural shrines (8,9).

§ 3. RELIGIOUS CONTEXT

The chariot-shaped structures are presently part of or associated with temples dedicated to a limited range of different deities of the Brāhmaṇical pantheon (Tables 4, 5, 6). The majority is found in the Śiva temples (19 nos.) or temples dedicated to Śaiva deities (7 nos.), *viz*., Subrahmaṇya and Gaṇapati. Of the four examples associated with Subrahmaṇya, only one (36) is a temple exclusively dedicated to this deity, while the other three structures (16, 31, 32) are subsidiary shrines within the Śiva temple complexes. The Gaṇapati shrines (8, 9) at the roadsides are isolated buildings located in the fields, while the Śveta Vināyaka temple (28) belongs to the large Kapardīśvara complex at Thiruvalanjuli. The temple at Konarak (2) is exclusively dedicated to Sūrya, while the Āditya shrine at Madras (10) is a *parivārālaya* in the Madhya Kailāsa temple, indicating that Sūrya is regarded as belonging to the retinue of Śiva. The semi-secular

TABLE 4	**RELIGIOUS CONTEXT: TYPOLOGICAL DISTRIBUTION***					
Type	**I**		**II**		**III**	
	A	**B**	**A**	**B**	**A**	**B**
Śiva	*1*		*11, 12, 13, 14, 15, 17, 18, 20, 21, 22*	*23, 24, 25, 26, 29, 34, 35*		*40*
Subrahmaṇya			*16*	*31, 32*	36	
Gaṇapati		8, 9		*28*		
Sūrya	2	*10*				
Vishṇu		4, 5, 6	19	27, 30	37, 38	41
secular		*3*, 7		33		

* Nos. in italics indicate structures in the Śiva temple complexes; no. 39 is not included.

stone chariot at Thiruvarur (3) is located near the spacious Tyāgarāja (Śiva) temple compound. Thus a total number of twenty-four structures (59%) is situated in or associated with the Śiva temple complexes.

The typological distribution (Table 4) reveals that almost all stone chariots in Śiva temples belong to Type II (17 nos.), while Types I and III are represented only by one temple each (1, 40). In the case of Sūrya, both structures (2, 10) belong to Type I. The chariots associated with Vishṇu, on the other hand, are evenly distributed: each type is represented by three examples.

Regarding the chronological development (Table 5) it is interesting to note that in the initial period (12th-13th cent.) the majority of structures (13 nos. = 65%) is located in the Śiva temples, while only three (15%) belong to the Vishṇu temples. In the revival period (15th-18th cent.), the order is almost reversed: five chariots (42%) are found in a Vaishṇava context and only three (25%) in the Śiva temples. The number of structures associated with Subrahmaṇya increased considerably in the second period, amounting to another 25% (3 nos.). The development indicated by this data points to a shift in the religious climate of south India, marked by a decline of Śaivism and a steady gain in importance of Vaishṇavism and the cult of Subrahmaṇya during the centuries following the eclipse of the Choḷa empire.[24] The relatively-small number of structures assignable to the 20th century (5 nos.) does not permit one to draw any conclusions since there are probably many more modern stone chariots scattered all over Tamilnadu which are yet to be traced.

TABLE 5	**RELIGIOUS CONTEXT: CHRONOLOGICAL DISTRIBUTION***		
	12th-13th century	**15th-18th century**	**20th century**
Śiva	1, 11, 12, 13, 14, 15, 17, 18, 23, 24, 25, 26, 29	20, 21, 40	
Subrahmaṇya	16	31, 32, 36	
Gaṇapati	28		8, 9
Sūrya	2		10
Vishṇu	19, 27, 30	4, 5, 6, 37, 41	38
secular	3	33	7

* Nos. 22, 34, 35 and 39 are not included.

Regarding the dynastic distribution (Table 6) it becomes evident that the Choḷas were responsible for the bulk of Śaivite structures (13 nos.); only one *ratha-maṇḍapa* was erected during their reign in a temple dedicated to Vishṇu, the Śārṅgapāṇi temple at

Kumbhakonam. A similar predilection for a single god can be ascertained in the case of the Tuḷuvas of Vijayanagara, who provided stone chariots exclusively for the Vishṇu temples (3 nos.), all housing images of Garuḍa. During Nāyaka times, the distributional pattern includes the Śiva temples (3 nos.) as well as the Subrahmaṇya temples (3 nos.) and the Vishṇu temples (2 nos.).

The gods who are found associated with chariot-shaped structures all belong to the *shaṇmata* grouping which Śaṅkarāchārya is stated to have re-established after reforming the extant ritual practices.[25] The *shaṇmatas* are six sects or forms of doctrines, *viz.*, the Śaiva, Vaishṇava, Śākta, Kaumāra, Saura and Gāṇapatya cults. Only the male deities in the group appear in the present context. The absence of stone chariots in temples dedicated to Devī[26] is noteworthy and may point to a state of mind where it was thought inappropriate to link a female deity with an attribute used mainly for warfare and royal representation. However, in the 20th century the prevalent taboo was infringed by the *sthapati* who was responsible for adding two wheels to the *sopāna* in front of the shrine of Vijayavaḷḷi Tāyār, the consort of Vishṇu as Chakrapāṇi at Kumbhakonam (38).[27]

TABLE 6	**RELIGIOUS CONTEXT: DYNASTIC DISTRIBUTION***					
	Śiva	**Subrahmaṇya**	**Gaṇ.**	**Sūrya**	**Vishṇu**	**sec.**
Choḷa	1,11,12,13,14,18(?), 23,24,25,26,29(?)		28		27	3
Pāṇḍya	15	16			19(?)	
Kāḍava	17, 22(?)					
E. Gaṅga				2	30	
Tuḷuva					4, 5, 6	
Nāyaka	20, 21, 40	31, 32, 36			37, 41	33
modern			8, 9	10	38	7

* Nos. 34, 35 and 39 are not included.

§ 4. FUNCTION

With the expansion of temple-rituals in the Later Choḷa period there arose the need for taking out the deity in procession in a ceremonial car, which was made necessarily of wood.[28] The temporal coincidence of the increasing popularity of car-festivals (*rath-otsava*) and the first appearance of chariot-shaped structures in temples led to speculations that the latter were perhaps only an artistic rendering of wooden festival-cars.[29] From the structural point of view, the *ratha-maṇḍapas* generally lack most of the characteristics of processional cars, e.g. proportions, superstructure and embellishment;[30] thus, they can neither be regarded as models nor as replicas of *utsava-rathas*. However, their functions appear to be interconnected: during *rath-otsava*, *ratha-maṇḍapas* served as a temporary sojourn of the processional image (*utsava-mūrti*) before the deity was taken to the wooden car[31] suggesting that the immobile stone *maṇḍapa* of the temple was such a transporter of the gods.[32]

Seven *ratha-vimānas* of sub-type I.B (3-9) are obviously conceived as replicas of *utsava-rathas*. The three stone chariots erected during the Vijayanagara period (4-6) when car-festivals became very popular all over south India[33] house images of Garuḍa, the vehicle (*vāhana*) of Vishṇu. A suggested movement towards the sanctum is conspicuously indicated by their relative position in the temple complex. At Hampi (4) the stone chariot is located in the courtyard in front of the *mahāmaṇḍapa*; at Tadpatri (5) it seems to have been pulled half-way into the *mahāmaṇḍapa*, being encircled by the latter on three sides but still under the open sky; at Somapalem (6) the *ratha* appears to have entered the *mahāmaṇḍapa* completely, the ceiling of which is continued above, giving the impression that the god is approached by his vehicle in order to be taken out in procession. The wheels of these three stone chariots as well as those of (36), (40) and (41), all erected in the revival period (15th-18th cent.), are of the disk-like variety without spokes. Thus they closely resemble the stone wheels used for wooden processional cars.[34]

The two modern roadside shrines (8-9) are modelled after the *goratha* variety of wooden temple-cars.[35] They imitate secular cars used for military and royal conveyance in bygone ages. The earliest example of this kind of chariot is found at Thiruvarur (3), depicting the legend of Maṉunīti Choḻa;[36] thus it functions as a memorial for the legendary king.[37] Another memorial in the shape of a chariot is the Vaḷḷuvar Koṭṭam at Madras (7), imitating the huge wooden temple-car (*svāmi-ter*) of Thiruvarur in all architectural details. It houses a sculpture of Thiruvaḷḷuvar, the celebrated author of the Kuṟaḷ. Both the memorial monuments face south, the direction of Yama, the god of death, thus suggesting a movement towards the great Beyond. While at Thiruvarur (3) the chariot itself, driven by the kingly charioteer (presently a modern piece of sculpture), is employed as a deadly weapon to re-establish the Justice of Manu, indicated by the crushed figure of Maṉunīti Choḻa's son under the front right (i.e. the south-western) wheel, at Madras (7) the chariot is used as a mode of transport for transgressing the borders of the other world.

Several large free-standing *ratha-maṇḍapas* of sub-type II.A have a raised platform located at the rear end of the pillared hall (12, 13, 19, 20, 21), while in one example (14) the central part of the *maṇḍapa* is devoid of a roof, thus taking the shape of a spacious courtyard.[38] Obviously these structures were formerly used as assembly halls (*sabhā-maṇḍapa*) for religious and/or secular activities.[39] Since the basements of almost all *ratha-maṇḍapas* are embellished with numerous reliefs depicting dancing figures and musicians it can be inferred that they served as a stage for dance performances.[40] The earliest structure of the group, the *nṛittasabhā* at Chidambaram (11), is traditionally regarded as the site where the dance contest between Śiva and Kālī took place,[41] and the later addition of chariot-shaped *maṇḍapas* for Naṭarāja at Kumbhakonam (13) and Uttarakosamangai (15) probably refers to this prototype. Since the latter two structures house images of Naṭarāja they functionally imitate the *chitsabhā* at Chidambaram, the hall containing the celebrated icon of Śiva dancing *ānanda-tāṇḍava*. It faces south as do the *ratha-maṇḍapas* in (13) and (15), while the *nṛittasabhā* (11), known as *etirampalam* ("opposite hall") in the inscriptions,[42] is located opposite the central shrine and consequently faces north. In (13) and (15), the architectural model of the *nṛittasabhā* has merged with the function of the *chitsabhā*, and again, the function was a decisive factor for the direction of the suggested movement.

§ 5. SYMBOLISM

The word *vimāna*, derived from *vi-√mā*, "to measure out, pass over, traverse",[43] designates a temple. It is also a synonym for *ratha*, "chariot", designating the vehicle of the god. The divine chariots of the gods, the sky-travellers, measure time as well as space. Their proportions and parts replicate the spatial and temporal measures of the cosmos. The world of time is composed of the cycles of the heavenly bodies.[44]

The worship of the deified power of the eternal sun, the most conspicuous of the heavenly bodies, has Vedic roots. The Sun-god (Savitṛi, Sūrya) with his rays measures the boundaries of heaven and earth.[45] He may be represented either by symbols such as the wheel or disk (*chakra*) or the opened lotus-flower (*padma*) or anthropomorphically on a chariot drawn by one, four, or seven horses. Twelve is the significant number of the sun. The twelve zodiacal signs corresponding to the twelve months of the solar year are personified as the twelve Ādityas, fundamentally aspects of light and collectively regarded as one, called the Āditya, i.e. the Sun in the centre of creation where manifested and unmanifested worlds unite.[46]

A striking example of solar symbolism is, of course, the Sūrya temple at Konarak (2).[47] Facing east towards the direction of the rising sun the chariot has twelve axles, representing the fixed zodiacal signs which are traversed by the sun on its annual course. Around these fixed poles (*dhruva*) revolve twelve pairs of wheels corresponding to the twenty-four hours of the solar day. Twelve wheels are placed on the southern and northern sides respectively, referring to the twelve bright and twelve dark hours. The seven draught-horses represent the seven days of the week. Thus, the constituent parts of the chariot can be equated to the basic units of the solar time reckoning, *viz*., year, month, week, day and hour.

While at Konarak the solar symbolism pervades the whole construction of the chariot, in many cases it is deducible only from the numerical design of the wheels. Frequently the number of spokes is twelve, either single and undecorated (1, 15, 33) or coupled with small standing figures of the twelve Ādityas[48] which are alternately carved in between (13, 19-21, 26, 31, 32, 39). In the Śaṅgapāṇi temple (27) the twelve spokes are interspersed with twelve dancing figures. In this temple the solar symbolism is also evident from the position of the wheels just below the *uttarāyaṇa* and *dakshiṇāyana vāsals*, the two rear gates used alternately as entrance to the temple when the sun is on its northern or southern course in relation to the celestial equator. The dancing figures probably refer to the festival celebrated every year when the sun transgresses the point of the winter solstice, enters the zodiacal sign of Capricorn (*makara*) and starts its ascending course (*makara-saṅkrānti*,Tam. *poṅkal*).[49]

Some chariots (9, 18, 38) have wheels with eight spokes. Eight is likewise a solar number referring to the sun's daily movement through the eight directional quarters which are presided over by the eight Ādityas.[50] The wheel at Thirukkarukavur (18) has eight standing Āditya figures alternately carved between the eight spokes.

Apart from the solar symbolism the numerical scheme of several wheels reveals a certain lunar significance. There are two numbers that are closely associated with the moon. The luminary of the night is regarded as consisting of sixteen digits (*kalā*) representing the sum total of its phases;[51] such a fixed relation between the moon and the number sixteen is traceable through the centuries back to the Vedic culture.[52] Twenty-eight is the number of the lunar mansions or constellations on the ecliptic (*nakshatra*)[53] through which the moon traverses in its monthly course.

The *nṛittasabhā* at Chidambaram (11) which is the only known *ratha-maṇḍapa* facing north, the traditional direction assigned to the Moon-god, has twenty-eight spokes grouped around a sixteen-petalled lotus encircling the hub of the wheel. Sixteen-spoked wheels are found in (2), (10) and (14). Interestingly, the temples at Konarak (2) and Madras (10) are dedicated to the Sun-god thus combining solar and lunar symbolism.

Since thirty-two lunar months are roughly equal to thirty-one solar months,[54] the reconciliation of the motions of the sun and the moon is symbolized by the number thirty-two, the original number of the symbolism of space.[55] The *vāstu-purusha-maṇḍala* accommodates thirty-two *padadevatās* within the border of the square of the ecliptic, thus adjusting the solar and lunar cycles.[56] Thirty-two-spoked wheels are found in two examples of our list (24, 25). The southern wheel at Thiruvakkarai (12) has thirty-one spokes.

Apparently, in some cases multiples or divisions of the basic symbolic number have been used. The six-spoked wheels present in two examples (8, 37) and the twenty-four-spoked wheels in another two items (23, 28) are supposedly derived from the basic number twelve. The forty-eight spokes of the wheels at Thiruvarur (3) may be regarded either as three times sixteen or four times twelve. Peculiarly, one of the four wheels of this stone chariot has only thirty-seven spokes. Apart from this single wheel and the wheels of two other structures, *viz.*, at Vriddhachalam (17) with twenty spokes and at Chayavanam (29) with nineteen[57] spokes, all wheels with spokes in our list can thus be numerically related either to solar or lunar symbolism; and also the spokeless and disk-like variety of wheels as represented by eight structures (4-7, 30, 36, 40, 41) alludes, morphologically, to the ever-moving luminaries.

The fifth decade of the reign of Kulottuṅga I, i.e. the second decade of the 12th century, in which the earliest known chariot-shaped structure (1) was constructed, witnessed the reinforcement of the worship of the Sun-god as is evident from several inscriptions related to the 41st through 48th regnal years of the king.[58] The only south Indian Sūrya temple at Suryanarkoyil near Kumbhakonam, the god of which was named *Kulōttuṅkachoḻa-māttāṇṭālaiyattu-chūriyatevar* after the king's name,[59] was completed before A.D. 1114. It has been held that the friendly diplomatic relations between the Gāhaḍavāla kings of Kānyakubja (Kannauj), who were worshippers of the Sun-god, and the Choḻa empire during the time of Kulottuṅga I might have been responsible for the propagation of Sūrya worship in south India.[60] This view is corroborated by the fact that the temple at Suryanarkoyil houses near the cult image of Sūrya sculptures of Viśveśvara and Viśālākshī,[61] deities associated with Varanasi, one of the capitals of the Gāhaḍavāla kingdom where at least two temples dedicated to the Sun-god are known to have existed in the first half of the 12th century.[62]

The temple at Melakkadambur (1), apart from presenting for the first time the concept of a temple on wheels, has several unique features unknown to any other monument of an earlier age. The two structural components *ratha* and *vimāna* are treated differently. The former is confined to the *upapīṭha* zone which, consisting of only three mouldings (*upāna*, *kaṇṭha* and *paṭṭikā*), is plain and undecorated, while the latter, being entirely covered with numerous sculptures, exhibits a bizarre vitality. The iconographic scheme of sculptures includes the placement of large figures of Sūrya and Chandra in the *karṇas* on the western (rear) wall of the *āditala*. Both are iconographically unique as they lack the usual lotuses as attributes and have their hands joined in *añjali-mudrā* holding *akshamālā*, identifiable only by their haloes and inscribed labels below. They are slightly turned towards the figure of Vishṇu in the central western *bhadra* niche. Their position on the rear side of the *vimāna* deviates from the distributional pattern of earlier Choḻa temples where Sūrya and Chandra, if present, are usually placed on the front facade, flanking the entrance to the sanctum and separated by an axial *maṇḍapa*, as for example in the great temples at Thanjavur and Gangaikonda-cholapuram.[63] However, the relative position of the two luminaries with regard to the central axis of the wall on which they are found is the same as in the preceding two temples: Sūrya is placed on the proper right and Chandra on the proper left of the respective axis in all three cases. Other unique features of the temple are the absence of *hāra* over the *āditala* and the presence of detached *karṇakūṭas* at the four corners over the *prastara*, the octagonal second *tala* topped by the round *grīva / śikhara* and the placement of eight unidentified four-armed deities at the eight corners in front of the *grīva*. This arrangement has been regarded as marking a new development in the Dravidian architecture.[64]

Most of the unique features of the temple at Melakkadambur, *viz.*, the square *āditala* with wheels joined to the *upapīṭha*, the octagonal *dvitīya tala*, eight figures of *devas* facing the eight directions, the round *grīva / śikhara*, the absence of *hāra* over both the *talas* and the symmetrical positions of Sūrya and Chandra with regard to the axis of the temple, are found in an almost identical arrangement on a peculiar piece of sculpture (Pl. 32.38),[65] in the temple at Gangaikondacholapuram, which is presently worshipped as *navagraha-maṇḍala* with special ritual affiliation to Saturn, the "slow-goer" (Śanaiśchara) among the nine planetary deities (Navagraha).[66] The slab has three tiers: a square base-plate (*upāna*) topped by a row of lotus petals (*mahāpadma*), an octagonal middle tier and a circular part above. The middle tier consists of a plank moulding (*prati*), a recess (*kaṇṭha*) with slightly canting pilasters at the corners and a projecting flexed cornice (*kapota*). Set against the lateral sides are two wheels turning the sculpture into the representation of a chariot. Although it has been stated that the wheels are ornamented with twelve lotus-petals each,[67] a close examination reveals that only the right wheel, when facing the direction of the suggested movement of the chariot, has a circle of twelve petals instead of spokes and a second circle of twelve petal tips behind (Pl. 32.38b). The left wheel is ornamented with a circle of sixteen petals, eight broad and eight narrow, connecting the hub with the rim, and a second circle of sixteen petal tips behind (Pl. 32.38c). It is obvious that the different design of the two wheels refers symbolically to the sun and the moon respectively.

The outer face of the circular drum above, slightly converging at the top, is again divided into different zones: the lowermost base-mouldings are topped by a zone which has eight full-fledged pilasters framing eight recesses filled with two lotus-buds each. The bracket-capitals (*poṭikā*) of the pilasters carry an architrave (*uttira*) which is surmounted by a row of sixteen lotus-petals, forming the upper border of the vertical part of the drum. The horizontal top portion is worked as a multi-petalled lotus-bud, with a central pistil surrounded by three circles of eight, ten and sixteen petals respectively.

The two lower tiers of the sculpture are studded with numerous figural representations of divine entities. Sitting in *padmāsana* on the flexed *kapota* there are eight identical two-armed male figures holding an indistinct object, probably a fruit, in their left and a lotus-bud in their right hands respectively. They all wear a conical headdress (*karaṇḍa-mukuṭa*?) with a circular halo behind. These deities may be identified either as the eight Ādityas[68] or as eight planetary deities (*graha*).[69] On the square base-plate below are found the following figures: six flying *vidyādharas* holding lotus-buds and flower-garlands, two at the corners of the right and left sides and two at the centre of the rear side; Aruṇa, the charioteer of Sūrya, in the centre of the front side just above the seven rearing horses; two dwarfish figures flanking the horses, the right one blowing a conch (Śaṅkhanidhi?) and the left one perhaps holding a lotus (Padmanidhi?); and two sages (*ṛishi*) sitting in *padmāsana* at the corners of the rear side with their hands joined in *añjalimudrā*.[70] The latter feature is again parallelled by the figures of Sūrya and Chandra in the same relative position at Melakkadambur.

The sculptured slab has been assigned to the time of Rājendra I (A.D. 1012-44),[71] the maternal grandfather of Kulottuṅga I, and some authors are of the opinion that it originated from the Chāḷukyas.[72] It may also be possible that it was carved in the time of Kulottuṅga I when the worship of the Sun-god gained importance in Choḻamaṇḍalam. A careful examination of the sculpture is necessary before a definite conclusion on the date and provenance can be drawn. At any rate, it seems to be sure that the slab was in existence in the temple at the capital Gangaikondacholapuram in the time of Kulottuṅga I,[73] and in all probability it was known to the king as well as to his *sthapatis*. The close resemblance of morphological and conceptual features of the slab with the temple at Melakkadambur, just about twelve km. away, makes it highly probable that the solar *pīṭha* was a source of inspiration and may even have served as a model for the Amṛita-ghaṭeśvara temple.

Whereas the numerical and iconographical details discussed above allude mainly to cosmological symbolism, especially to that of the sun and moon,[74] another interesting architectural detail present in at least five *ratha-maṇḍapas* indicates that the *sthapatis* referred also to the symbolism of water[75] when designing stone chariots. On the central part of the front side of the structures at Kilapalaiyarai (24), Darasuram (25) and Kumbhakonam (27), just above the *upapīṭha*, there are miniature balustrades imitating the railing of a chariot. At intervals they are perforated with small openings at the bottom. The low basin thus obtained was obviously meant for receiving water. A similar arrangement is found at Kumbhakonam (13) and Chidambaram (16); in the latter instances, however, the balustrade is not confined to the front side but extends also to the lateral sides of the building, creating the impression that the whole upper part of the *maṇḍapa* is floating on water.[76] The reflections of the incident sun-rays must have produced a dazzling movement of lights on the pillars and ceiling of the structure. Symbolically, the heavenly region or abode of the gods (upper part and platform) is separated from the earthly region (*upapīṭha*) by the purifying waters. The man-made model of a divine chariot thus integrates in its massive body and wheels the basic elements constituting space (earth and water) and time (sun and moon) in order to denote the ability of the gods to move across the universe.

Finally, another interesting feature of the Melakkadambur temple leads us to some mythological considerations. In Indian art, representations of chariots are often found in depictions of wars and battles, e.g. on panels illustrating scenes from the *Rāmāyaṇa* or *Mahābhārata*. The weapon which is of primary importance in such representations[77] is the bow, a symbol of royalty. Several chariot-shaped structures are embellished with reliefs depicting archers. Below the *śikhara* of the temple at Melakkadambur (1), on the surface of the round *grīva*,[78] there are a number of scenes showing archers engaged in combat; no doubt they depict scenes from the *Kirātārjunīya* (Arjuna's fight with Śiva disguised as a hunter).[79] The panel in the south-east[80] shows Śiva as Kirātamūrti approaching the forest, in the south-west (Pl. 32.1) and in the north-west (Pl. 32.2) Arjuna and Kirāta are shown fighting, and the final scene in the north-east represents Śiva in the form of Pāśupatāstradānamūrti granting the weapon to Arjuna. The walls of the Subrahmaṇya sub-shrine at Thanjavur (32) have several representations of Subrahmaṇya, the slayer of the demon Tāraka, as a warrior with bow and arrow as attributes. Some temples refer to archery by their names, e.g. the Śārṅgapāṇi temple at Kumbhakonam (27), dedicated to Vishṇu as "the one who holds the *śārṅga* (a bow made of horn) in his hand",[81] and the Kodaṇḍarāma temple at Ariyalur (37), dedicated to Rāmāvatāra holding his bow *kodaṇḍa*.

According to local legends several holy places in and around Kumbhakonam came into existence when Śiva in the form of a *kirāta* pierced a pot of *amṛita* with his arrow.[82] It has been suggested that the area around Kumbhakonam may have been the centre of a certain iconographic type of a "divinity with a bow".[83] The most impressive and perfectly preserved stone chariot of the Kumbhakonam group, the *ratha-maṇḍapa* at Darasuram (25), has been identified elsewhere[84] as a representation of the heavenly chariot of the bow-bearing form of Śiva, Tripurāntaka ("Destroyer of the three cities"). According to epic and *paurāṇic* sources, the chariot had been constructed by Viśvakarman, "the divine architect of the universe, the personification of creative power which 'welds heaven and earth together',"[85] in order to enable Śiva to fight the three *asuras* Tārakāksha, Kamalāksha and Vidyunmālī, the sons of Tāraka. He included all elements of the macrocosmos within the microcosmos of the chariot, establishing a new organization of cosmic space. The proposed identification is based on the presence of several representations of Tripurāntaka and the figure of the Buddha in the *upapīṭha* of the structure as well as on the arrangement of seven figures of deities in the *devakoshṭhas* of the *adhishṭhāna*, *viz.*, Brahmā, Vishṇu and Indra, Vāyu and Agni, Sūrya and Chandra,[86] all of them acting characters in the Tripurāntaka myth. This outstanding structure, ingeniously merging cosmological with mythological symbolism, thus marks the culmination of the early development of chariot-shaped structures[87] and bears witness to the imaginativeness of the *sthapatis* employed at the Choḻa court in the mid-12th century who even dared to pit their skills against Viśvakarman himself.

To conclude the discussion on chariot-shaped structures in south Indian temples, it has to be pointed out that two out of three major types,*viz.*, *ratha-vimāna* (I) and *ratha-maṇḍapa* (II) were created during the time of Kulottuṅga I (*c.* A.D. 1070-1122) near Gangaikondacholapuram on the northern border of Choḻamaṇḍalam. A variant of the second type, *viz.*, the attached *ratha-maṇḍapa* (II.B), constituting the most numerous single group of chariot-shaped structures, is traceable from the time of his successor Vikrama Choḻa (A.D. 1118-35) onwards, created and almost exclusively employed in the heart of Choḻamaṇḍalam, i.e. the environs of Kumbhakonam where the imperial Choḻas developed an extensive urban centre around the twin-city of Kuḍamūkku-Paḻaiyāṟai. The practice of the Later Choḻa monarchs to move about their territories on permanent inspection tours—a custom especially known to have been practised by Vikrama Choḻa[88] —may well have fostered the creation of this sub type: just as the king with his royal attendants travelled (on chariots?) from one palace or ceremonial centre to another,[89] the gods and their attendants experienced a new movability which, on the one hand, led to a modification of temple-rituals exemplified by the increasing popularity of car-festivals (*rath-otsava*) from the 12th century onwards and, on the other hand, to the construction of stone chariots attached to the foremost *maṇḍapa* of the axial temple complex as though a car had been moved along to take up a passenger.

The predominance of solar and—to a lesser extent—also lunar symbolism, traceable in the numerical scheme of the spokes as a feature inherent in the design of almost all wheels, points to a prevailing association of the immovable stone structures with the ever-moving luminaries, the visible symbols of time and space, thus aptly suited for propelling the transporters of the gods. The temporal coincidence of the reinforcement of solar worship in south India and the first appearance of chariot-shaped structures with their significant solar/lunar symbolism is parallelled by the amalgamation of the Choḻa and Chāḷukya dynasties who claimed descent from the Sun and the Moon respectively. The *sthapatis* of Kulottuṅga I 'who was born to rule under one umbrella the two kingdoms of the royal Houses (of the Lunar and Solar dynasties)'[90] are to be credited with having created—whether deliberately or not—a metaphor in stone for the revitalized kingship by utilizing the royal symbol of a chariot[91] for emphasizing the outset of a new dynastic line.*

Notes and references

1. L'Hernault 1987, pp. 6-7.
2. Mahalingam 1970, pp. 41-2; Kalidos 1984, pp. 160-4.
3. Sivaramamurti 1955, pp. 18-9.
4. Some of the temples have been listed before: six items by Mahalingam 1967, p. 39 (nos. 13, 17, 18, 24, 25, 40); fifteen by Mahalingam 1970, pp. 41-2 (nos. 1-3, 11-13, 17, 18, 20, 22, 24, 25, 27, 34, 40); eleven by Sarkar 1974, p. 9 (nos. 1-4, 11, 13, 17, 25-27, 35); fourteen by Soundara Rajan 1978, p. 128 (nos. 1-3, 11-13, 16, 17, 20, 22, 25-27, 34); thirteen by Balasubrahmanyam 1979, pp. 40, 125, 171 (nos. 1-5, 11, 12, 14, 23-27); thirteen by Kalidos 1984, pp. 160-4 (nos. 1-4, 7, 11, 15, 17, 25-27, 33, 36); ten by Srinivasan 1985, pp. 149, 151 (nos. 2, 3, 11, 13, 17, 25-27, 30, 35); twelve by L'Hernault 1987, pp. 6, 132 (nos. 1, 4, 11-13, 16-18, 23-26).
5. For different classifications see Mahalingam 1970, pp. 41-2, and Kalidos 1984, pp. 160-3.
6. Taluk names are only mentioned if they differ from the district names. State names have been abbreviated: TN = Tamilnadu, AP = Andhra Pradesh, K = Karnataka, O = Orissa. Modern geographical names have been rendered without diacritical marks.
7. For a discussion of the term *ratha* in an architectural context see Kalidos 1984, pp. 155-6.
8. I am thankful to T. Chandrakumar, Tamil University, Thanjavur, for giving me information about this temple.
9. I am grateful to Françoise L'Hernault for informing me of this structure.
10. Mahalingam 1970, p. 42; Balasubrahmanyam 1979, p. 197; Kalidos 1984, p. 162.
11. Elephants have been erroneously described as drawing stone chariots; see e.g. Nilakanta Sastri 1955, p. 717 regarding the Darasuram temple (25), or Balasubrahmanyam 1963, p. 57 regarding the Tribhuvanam temple (26).
12. According to Thiru Viraswamy, Curator (oral communication in September 1991).
13. Balasubrahmanyam 1963, p. 56; *idem* 1979, pp. 125, 171, referring to Yazdani 1960, p. 426, remarks that the temple of Baleśvara built at Halagondi about A.D. 1090 might have been the precursor of the *ratha-vimāna* type of temple architecture.
14. Sivaramamurti 1955, p. 19.
15. Srinivasan 1984, pp. 5-6. See also Nilakanta Sastri 1955, pp. 393-5, 421 and Subrahmanian 1978, pp. 239-251.
16. Subrahmanian 1978, p. 243.
17. *Ibidem*, pp. 158-9.
18. Nilakanta Sastri 1955, pp. 386, 421; Subrahmanian 1978, pp. 225, 229-30, 240; Srinivasan 1984, pp. 2-6.
19. Champakalakshmi 1979, pp. 18-9.
20. Cf. the reconstruction of the original plan in L'Hernault 1987, pl. introd. III. However, lateral stairs are said to have led up to the main (rear) part of the structure; *ibidem*, p. 7.
21. The present stairs in (23) and (24) do not harmonize with the adjoining parts of the basement and appear to have been added later, perhaps in the time of Kulottuṅga III.
22. Narasiṁha I was a direct descendant of Kulottuṅga I whose daughter Rājasundarī was married to Anantavarma Choḍagaṅga, ancestor of Narasiṁha I; see Sivaramamurti 1955, p. 19.
23. 'Fired by the heat of compulsive hand, they created mutations of germ-ideas [...] in the same way as the fundamental particles are sparked by genes for mutations in biological spurts.' (Soundara Rajan [1980], p. 40). A huge rectangular stone slab in front of one of the temples in the north-western part of the Hemakūṭa hill at Hampi, just south of the closed gateway which once led down to the Virūpāksha complex, may be regarded as a precursor of the *ratha-sopāna* variety. The slab is

carved in low relief with a representation of a galloping horse drawing a two-wheeled chariot (one wheel visible) and serves as the northern banister of the (missing) steps leading to the shrine, which has been tentatively assigned to the 9th-10th century (Devakunjari 1983, pp. 51-2) or to the 8th-9th century (Michell 1992, p. 428, Fig. 51.3. Left). There is no corresponding slab on the southern side. It is doubtful whether the slab is presently in its original position or not. Stylistically it is related to the mature Vijayanagara style.

24. Cf. Champakalakshmi 1979, pp. 13, 15 and Stein 1985, pp. 461-5, Fig. VIII-2.
25. Srinivasan 1985, pp. 55-6.
26. The *nṛittasabhā* at Chidambaram, located at a site which seems to have certain relations to the goddess Kālī who in south Indian tradition appears as an indigenous cult-deity possessing no affiliation to Śiva (Swamy 1979, p. 75), has been regarded as being linked with *Śākta/tāntrik* worship (according to R.N. Natarajarathina Deekshitar, Chidambaram, oral communication; see also Younger 1986, pp. 218-9). In this case it would be the only early stone chariot associated with a female deity, adding another unique feature to this structure; see §§ 4, 5.
27. According to Chockalingam 1971, p. 132, the *ardhamaṇḍapa* and *mahāmaṇḍapa* of the shrine were constructed by the father of Mugniram Ramkumar Bangur Didwana (Marwar) in A.D. 1933.
28. Mahalingam 1970, p. 40. The author gives several inscriptional references to the practice of car-festivals in the Later Choḷa period. See also Soundara Rajan 1978, p.128 and Kalidos 1989, pp. 30-2.
29. Mahalingam 1970, p. 40.
30. Kalidos 1984, p. 161. For structural details of processional cars see Dumarçay 1975: *passim* and Gail 1986, pp. 161-4.
31. Kalidos 1984, pp. 161-2.
32. Huntington 1985, p. 532.
33. For inscriptional references see Kalidos 1989, pp. 33-4.
34. These are mainly found in Karnataka and the north-western part of Tamilnadu. For depictions of several stone wheels of wooden *utsava-rathas*, see Dumarçay 1975, Phs. 6, 7, 9, 11, and Deloche 1981, Pls. XIII-XVII. It is interesting to note that even in the time of Kulottuṅga I 'an *anuloma* caste of *rathakāras* or regular chariot-making carpenter-craftsmen were established in different parts of the realm, to offer their expertise not only for the designing of the wooden temple-cars, but also the *gopura* work' (Soundara Rajan 1978, p. 128).
35. Cf. Kalidos 1984, pp. 153-4, Fig. 18; *idem* 1989, 26, Figs. 8, 9.
36. For a summary of the legend and further references see *idem* 1984, p. 163, note 27.
37. A modern memorial depicting the Maṉunīti Choḷa episode can be seen in the courtyard behind the High Court buildings, near Parry's Corner, Madras.
38. Originally, there had also been a large square space in the centre of the *ratha-maṇḍapa* at Darasuram (25) which was rebuilt in later times by inserting additional pillars; cf. J. Dumarçay in L'Hernault 1987, pp. 54-6.
39. There seems to be an epigraphical evidence that the *sabhāmaṇḍapa* at Thiruppulivanam (14) became prominent as the centre of the village political life in the Later Choḷa period when the leadership of Uttaramerur shifted to this hamlet a few km. to the north-east; see Gros 1971, pp. 195-7.
40. Cf. L'Hernault 1987, p. 92.
41. Cf. Swamy 1979, pp. 75-6 and Younger 1986, pp. 218-9. See also *supra* note 26.
42. For differing opinions on the identification of *nṛittasabhā* with *etirampalam* see Swamy 1979, pp. 39-41 and Younger 1986, p. 216.
43. Monier-Williams 1899, p. 980, col. 1.
44. Snodgrass 1990, p. 188.
45. Kramrisch 1946, p. 132.

46. Stutley 1977, pp. 3, 291. In early texts, the number of Ādityas was uncertain but later was fixed at twelve. For a summary of the Ṛigvedic and later Vedic concept of the number of Ādityas see Brereton 1981, pp. 3-6. The epics, *purāṇas* and other literature produced different lists of names of the twelve Ādityas; see Mallmann 1963, pp. 76-81.
47. Cf. Malville 1989, pp. 380-1 and Snodgrass 1990, pp. 188-9.
48. Soundara Rajan 1978, p. 128, following Mahalingam 1970, p. 42, notes that 'The spokes of the wheels of the chariots often carry the figure of Sūrya or fish in all of them, in certain examples elsewhere.' However, fish-spoked wheels (*matsyachakra*) like those carved on the ceilings of Cave II and the Jambuliṅga temple at Badami, or in the window lattice of the Lāḍ Khān temple at Aihole or the Virūpāksha temple at Pattadakal (see Tartakov 1980, p. 69, Figs. 1-4) are not found in any of the structures under study.
49. During the festival *poṅkal* (boiled rice) is offered to the Sun-god. For a description of the ceremonies see Lakshmanan Chettiar 1980, pp. 104-5.
50. Kramrisch 1946, pp. 47-8; Snodgrass 1990, p. 143. According to Sāyaṇa, the eight Ādityas are: Mitra, Varuṇa, Dhātar, Aryaman, Aṁśa, Bhaga, Vivasvat and Āditya (Sūrya); see Stutley 1977, p. 3; also Brereton 1981, pp. 6, 298-319.
51. Kramrisch 1946, pp. 15, 47.
52. Gonda 1965, *passim.*
53. The number of *nakshatras* is generally given as 27 or 28, and in at least one text as 32; see Kramrisch 1946, p. 31 and Gibson 1951, p. 150. Artists mostly preferred to depict 28 *nakshatras* perhaps because it is easier to subdivide a circle into 28 equal sections than into 27. See e.g. Pal 1991, p. 71, col. pl. of item 33. In this earliest known dated Nepalese Sūrya-*maṇḍala* of A.D. 1379(?), 28 *nakshatras* are depicted in the second circle surrounding the central figure of Sūrya riding a chariot drawn by seven horses. It was painted to commemorate the occasion when the donor performed the *bhīmaratha* rite. This rite, in Nepal mostly observed by Buddhists, is performed on 'the fearful night' (*bhīmarathī*, prob. for-*rātrī*), i.e. the 7th night in the 7th month of the 77th year of life, after which a person is regarded as in his or her dotage, and hence exempt from religious duties (Monier-Willams 1899, p. 758, col. 2). The honoree is driven in procession in a chariot to the accompaniment of music, a scene usually depicted in the bottom register of paintings commemorating the ceremony; see Pal 1977: *passim*. Another item in the same catalogue (Pal. 1991, p. 66, Fig. 30 = Pal 1977, p. 180, Figs. 4-5) is a gilt copper *chaitya* dedicated in A.D. 1882 to commemorate the performance of the *bhīmaratha* rite. Attached to the front of the *chaitya* is a four-wheeled chariot drawn by three horses. The couple for whose benefit the rite was performed is shown riding the chairot. 'This is no doubt the literal interpretation of the component *ratha*, meaning 'chariot', in the word *Bhīmaratha*, as if the two are ascending to heaven in style.' (Pal 1991, p. 66). This object provides a rare representation of a chariot-shaped structure in a Buddhist context. The *bhīmaratha* rite seems to be linked to the solar symbolism as is suggested by its depiction in the commemorative Sūrya-*maṇḍala* and the key number seven (on seven see Chapekar 1974, pp. 37-8; Brereton 1981, pp. 4-5; Snodgrass 1990, p. 189) determining the date of its performance. A similar ritual is observed in south India, when a person sees the full moon for the 1008th time after his or her birth (roughly equal to 81 and a half years). Here, the timing clearly indicates a lunar basis for calculating the span of human life; see Lakshmanan Chettiar 1980, pp. 26, 201.
54. Sircar 1965, p. 225.
55. Kramrisch 1946, pp. 31-2.
56. *Ibidem.*
57. As the Lunar Node, i.e. the point where the moon's orbit crosses the ecliptic from south to north, takes approximately 19 years to complete a full revolution one might be tempted to relate the 19-spoked wheels at Chayavanam to lunar symbolism.

58. Balasubrahmanyam 1979, p. 131. The name of one of Kulottuṅga's daughters Sūryavalli, who was given in marriage to a Siṁhala prince (Srinivasan 1983, p. 289), may also be of some significance in this context.
59. ARSIE 1926-27, p. 44, 79 para. 19. For a description of the temple see Balasubrahmanyam 1979, pp. 130-3, Pls. 121-5.
60. Nilakanta Sastri 1955, p. 325; Balasubrahmanyam 1979, p. 131. This assumption is mainly based on the existence of an inscription at Gangaikondacholapuram of a Gāhaḍavāla prince citing the 41st year of Kulottuṅga I (V. Venkayya in ARASI 1907-08, p. 228). The close contact between the Choḷas and Gāhaḍavālas is also evident from the adoption of certain south Indian taxes by the rulers at Kannauj; see Niyogi 1959, pp. 180-3.
61. Balasubrahmanyam 1979, p. 133. However, images of these two deities are found in many temples in Tamilnadu, and it would be interesting to probe for the beginning of their cult in south India.
62. Niyogi 1959, p. 208. For an account of the Sun-worship in and around Varanasi given in the *Kāśī Khaṇḍa* of the *Skanda Purāṇa* see Pandey 1971, pp. 146-7.
63. For Thanjavur see L'Hernault 1987, p. 8, Fig. 2 (on the plan the positions of Sūrya and Chandra appear accidentally reversed); for Gangaikondacholapuram see Srinivasan 1983, p. 246, Table 3.
64. Balasubrahmanyam 1963, p. 50.
65. This interesting and well-preserved 'great gem of art' (Sivaramamurti 1955, pp. 24-5, Pl. XVc) did not receive adequate attention yet; few lines have been devoted to the slab by Nilakanta Sastri (1955, pp. 729, 760, Pl. XXIII, Fig. 60), Sivaramamurti (1960, p. 25, Pl. X), Nagaswamy (1970, p. 35), Balasubrahmanyam (1975, pp. 250-1), Shetti (1992). In a recently-published monograph on Gangaikondacholapuram the sculpture has been discussed in some detail by Françoise L'Hernault (Pichard 1994, pp. 152-3, photo 314). The size of the slab is about 83 × 83 × 40 cm.
66. 'In recent years, it has assumed great significance as a large number of devotees worship it as Navagraha for the fulfilment of their vows. When the planet Saturn changes its position [i.e. enters another zodiacal sign] once in 27 months, nearly a million people offer worship to this altar' (Nagaswamy 1970, p 35). It is interesting to note that in the Rājarājeśvara temple at Thanjavur, a single (probably modern) figure of Śanaiśchara is kept in worship in the north-eastern part of the *mukhamaṇḍapa* in front of the *mahāmaṇḍapa*, in approximately the same relative position where the slab is found at Gangaikondacholapuram, and the temple at Darasuram (25) too houses a figure of Saturn in the north-eastern part of the *mahāmaṇḍapa*.
67. Nagaswamy 1970, p. 35; Balasubrahmanyam 1975, p. 250; Shetti 1992, p. 336.
68. See *supra* note 50. An identification as the guardians of the eight directions of space (Dikpāla) can be ruled out, since the figures are not individually characterized like the earlier Dikpāla representations from Thanjavur (*mālikā*) and Gangaikondacholapuram (*devakoshṭhas* in the *vimāna's* second *tala*). Of the iconographically undifferentiated groups of eight *devas*, the eight Vasus, a class of gods regarded as atmospheric powers, are said to be of terrible appearance, holding a sword and a shield (*Mayamata* 36.171-173a, see Dagens 1985, p. 358); thus they also can be excluded. A possible alternative would be the identification as the eight Maruts, the Vedic storm-gods who are described as having coiled knotted hair and carrying divine flowers (*Mayamata* 36.173b-174). However, for lack of comparable representations of the Maruts this identification seems rather unlikely, too.
69. Previously they have been identified as eight planetary deities of the Navagraha group (Sivaramamurti 1955, pp. 24-5; Balasubrahmanyam 1975, p. 250; Shetti 1992, p. 337; F. L'Hernault in Pichard 1994, pp. 152-3). Although there is room for doubt about this identification since there seems to be no evidence that all the *grahas*, including Chandra, Rāhu and Ketu, were ever shown in one set as identical two-armed figures in human form (cf. the earliest datable south Indian sculptures of *grahas* known so far from the Chidambaram *gopuras* of *c.* 12th-13th cent., published by Harle 1963, pp. 112-3, 116-7, 121-2, 125, 127-8, Pls. 147, 153-4, 159, 162, 165, which are distinguishable by certain individual features), a Chāḷukyan sculpture may provide a hint to the correct identification

of the figures. The Sūrya image enshrined in the *garbhagṛiha* of the Sūryanārāyaṇa temple at Aihole shows the deity standing on a miniature two-wheeled chariot drawn by seven horses (Gupte 1967, Pl. 77). On the *prabhāvalī* are carved eight identical two-armed male figures, four on the left and four on the right side, holding a lotus-bud and an indistinct object (fruit?) in their right and left hands respectively. Thus they strongly resemble the eight deities of the Gangaikondacholapuram slab save for the sitting posture which differs in that the right legs do not rest flat on the seat but are slightly raised (*ardh-endu-kṛit-āsana*). As the total number of deities at Aihole is nine, it is rather unlikely that they represent Ādityas who in sculptural art either (rarely) number eight, e.g. on the wheel at Thirukkarukavur (18), or—most frequently—twelve; see e.g. the wheels of (13), (19-21), (26), (31-2), and (39); cf. also the seventeen Bengal sculptures of Sūrya surrounded by eleven Ādityas, mentioned by Haque 1992, pp. 184-5, 190-1, Pls. 164-7. Thus it seems quite probable that the figures on both the sculptures from Gangaikondacholapuram and Aihole represent the planetary deities in a two-armed human form, an iconography unknown in north India and replaced in south India in the 12th century by the iconography of individualized *grahas*.

70. F. L'Hernault in Pichard 1994, pp. 152-3.
71. '. . . the brilliant creation of the Choḷa sculptor of Rājendra . . . ' (Sivaramamurti 1955, p. 25). This view is accepted by Shetti 1992, p. 337.
72. 'This elegant piece is also decidedly a Chāḷukyan sculpture, probably brought here as a war trophy' (Nagaswamy 1970, p. 35). The same view is held by Balasubrahmanyam 1975, pp. 250-1 and F. L'Hernault in Pichard 1994, pp. 152-3.
73. The present location in the north-eastern corner of the *mahāmaṇḍapa* is probably not its original position as it is placed on a platform supposedly built during the Nāyaka times. The position corresponds to its present ritual function as *navagraha-maṇḍala*; in south Indian Śiva temples such *maṇḍalas* are almost invariably found in the north-eastern direction.
74. At Melakkadambur the solar features seem to outnumber the lunar references. While there are iconic representations of both Sūrya and Chandra, the four 12-spoked wheels attached to the base elevate the temple symbolically upon a solar chariot. This structural solar predominance is balanced by a certain lunar significance deducible from the name of the god of the temple, *viz.*, Amṛitaghaṭeśvara ("Lord of the bowl containing the elixir of immortality"). 'In late Vedic texts Soma (the moon-god) is regarded as the receptacle of *soma* juice (the sacrificial oblation), or alternatively of *amṛta*, a belief which was the basis of many Paurāṇic legends, among them being that attributing the waxing of the moon to the replenishment of its store of *amṛta* by sunbeams.' (Stutley 1977: p. 11). According to the *Brahma Purāṇa*, Amṛitā is the name of the first *kalā* of the moon (Monier-Williams 1899, p. 82, col. 2); it denotes also the number 4 (*ibidem*), mathematically the square root of 16, the symbolic lunar number *par excellence.* Further, Chandra is likened to a bowl overflowing with *amṛita*, (Stutley 1977, p. 60). The name of the god may thus be understood as "Lord of the moon", which is parallelled by the name of the temple at Kilapalaiyarai (24), *viz.*, Somanātha. Therefore, the solar/lunar symbolism in the Melakkadambur temple appears to be balanced: the *upapīṭha* with its 12-spoked wheels, being predominantly solar, is surmounted by the *vimāna* with the *garbhagṛiha* containing the *liṅga* Amṛitaghaṭeśvara, predominantly relating to lunar symbolism. (For a possible interpretation relating the balanced employment of solar and lunar features to the historical situation see the concluding remarks at the end of this paper.) However, it is not known when the present name of the temple came into existence. Another combination of solar and lunar symbolism is present in the three stone chariots housing images of Garuḍa (4-6). On the one hand, Garuḍa as Amṛitaharaṇa ("stealer of *amṛita*") is related to *amṛita* and hence to the moon, and on the other hand, referring to his possible prototype Garutmān, he is associated with the sun and identified with the all-consuming sun's rays. He has also been considered as the theriomorphic form of the Vedic Āditya Vishṇu; see Stutley 1977, p. 95.

75. For the relevance of water in the worship of the Sun-god and the ritual of *sūryārghya* see Malville 1985, pp. 213-5.
76. The tradition of employing water as an integral means in the layout of temples was developed in the Later Chola period. Low balustrades built directly on the paved courtyard surrounding the *vimānas* at Darasuräm (25), Tribhuvanam (26) and Thanjavur (32) can still be seen today; cf. J. Dumarçay in L'Hernault 1987, pp. 43-4, fig. 1. This feature may well be linked with the practice of floating car-festivals (*tepp-otsava*) which became popular since the 12th century; cf. Kalidos 1989, p. 32. Even in the Rājasiṁha period of Pallava architecture we can find traces of this feature. The recently-excavated miniature shrine near the zoomorphic *varāha* to the north of the Shore temple at Mamallapuram has a low water channel in the upper part of its base (Lockwood 1992, Figs. 1-3) suggesting that also this *alpa-vimāna*—like the two larger Śiva temples nearby—was originally conceived as floating on water. On the west of the same compound water had been channelled into a series of passages and pools; cf. Huntington 1985, p. 314.
77. See e.g. Deloche 1981, Pls. I-V, VII-IX, XIV, XV.
78. According to Balasubrahmanyam 1963, p. 50, the present *śikhara* is recent in date. He suggests that the original *śikhara* was octagonal 'so as to be in harmony with the cornice of the second *tala*.' This view is accepted by Kalidos 1984, p. 162. However, considering the fact that according to the canons of Indian architecture the form of the *kapota* must conform to the *tala* below but not to the member above, in this case the *grīva*, and further that a square *āditala* surmounted by an octagonal *dvitīya tala* is *per se* quite an unusual combination, I am inclined to believe that the *grīva* and *śikhara* were originally round and the *sthapatis* perhaps intended to replicate the vertical elevation of a *liṅga* in the shape of the *vimāna*.
79. For a summary of the different versions of the story see Ramachandran 1950-51, pp. 3-15.
80. See L'Herṁault 1987, ph. introd., p. 9.
81. 'It is believed that the *Vaidika vimana* of the Sar(a)ngapani temple is the offshoot of the Srirangam *Pranava vimana* and a *replica* of the *vimana* presented to Vibhishana of Lanka by the Ikshvakus of Ayodhya at the time of Rama's coronation.' (Balasubrahmanyam 1979, p. 197). Thus, there seems to be a mythological connection between the Śārṁgapāṇi temple and the Śrīraṅgam temple where another stone chariot (19) is found, and both are linked with Rāmachandra, the 'archer-*avatāra*' of Vishṇu.
82. For a summary of the legends see Mahalingam 1967, p. 17 and Balasubrahmanyam 1979, pp. 196-7.
83. Sanford 1974, pp. 12-8.
84. Mevissen 1993; *idem* 1994.
85. Stutley 1977, p. 337 quoting *Ṛigveda* X. 81,2-3; 82, 2.
86. See L'Hernault 1987, pl. ico. I.
87. The *ratha-maṇḍapa* at Kilapalaiyarai (24) resembles the one at Darasuram in many structural details. It looks like an earlier version of the latter and may be regarded as the first attempt at realizing a concept that was eventually executed at Darasuram. However, all the *devakoshṭhas* in the *adhishṭhāna* are empty now and it is not known if they had originally contained any images.
88. Cf. Nilakanta Sastri 1955, p. 346.
89. Cf. Champakalakshmi 1990, p. 672.
90. Venkataraman 1971, p. 17, quoting the *Kaliṅgattuparaṇi* of Jayaṅkoṇḍar.
91. The chariot-drive after a king's *abhishekha* (unction) as part of the *rājasūsya* (consecration) ceremony in Vedic and post-Vedic times celebrated an aspect of cosmic order; see Scharfe 1989, pp. 80-1.

*My thanks are due to the Freie Universität Berlin for granting financial support for a six week stay in India to collect the relevant data for this study. Further, I should like to express my gratitude to Françoise L'Hernault for her helpful suggestions on an earlier draft of this paper and the hospitality she extended to me when I stayed at the French Institute, Pondicherry. Finally, Vandana Nadkarni deserves my warmest thanks for going through the manuscript and improving my English.

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33

Temples at Narayanapuram (Andhra Pradesh)

D. R. Das

Narayanapuram,[1] a prosperous village in District Vizianagaram of Andhra Pradesh, was once a well-known place of pilgrimage under the name Nidumjeruvu as well as Navapalli.[2] Four temples, standing in a row and facing east (Pls. 33.1 & 2), are the living testimony of the religious importance which the village seems to have enjoyed during the time of the Gaṅgas of Kaliṅga. From south to north, these four temples are known as Naleśvara, Nīlakaṇṭheśvara, Saṅgameśvara and Mallikārjuna.[3] Made of khondalite, all these temples underwent partial restoration and renovation.

None of the temples at Narayanapuram is provided with a plinth. A paved floor on the ground level was made before the construction of the main structure of the temple. In each of them, the courses of stone blocks are laid without any binding mortar, a feature common to the early temples of India. The stone blocks are kept in position by weight and balance and occasional use of iron clamps and dowels.

Of the four temples at Narayanapuram, the Saṅgameśvara is of the *khākharā* order, while the rest belong to the *rekha* type of Orissan canonical literature.[4] The presiding deity in every temple is Śiva in his *liṅgam* form. The Nīlakaṇṭheśvara, the largest and most important of the group, has a *mukha-śālā* in front of its *baḍa deula*. Other temples are single-chambered structures. An account of the Nīlakaṇṭheśvara, known originally as the Nīlīśvara or Nīleśvara, has been given by Debala Mitra.[5] Not much is known about the three other temples from any published report. Venkata Ramayya's unpublished survey also is not very comprehensive so far as these temples are concerned.[6] In a modest way, the present paper endeavours to focus on their characteristics.

I

The Naleśvara temple (Fig. 1 and Pls. 33.3-5), the smallest of the group, stands on the right of the Nīlakaṇṭheśvara temple. It is *tri-ratha* on plan. The *rathas* are faceted and demarcated from one another by indents. Along the vertical axis, the temple is divided into three sections—*bāḍa*, *gaṇḍi* and *mastaka*. The *bāḍa* is subdivided into *pābhāga*, *jāṅgha* and *baraṇḍa*. The *pābhāga* consists of three mouldings, *viz.*, *pāda* (*khurā* type), *noli* and *basanta* (*khurā* type). On each *ratha-paga* segment of the *jāṅgha* is a shrine-like niche, meant for containing an image. The niches on the *rāhās* are larger than those on the *kaṇikas*. Gaṇeśa, Kārttikeya and an eroded image occupy the *rāhā*-niches on the south, west and north respectively. The niches on the *kaṇikas* are empty. A *kāṇṭi* frieze, underlined by a *khurā* moulding, indicates the *baraṇḍa*.

The curvilinear *gaṇḍi* above the *baraṇḍa* is serrated by *baraṇḍikas*. The *gaṇḍi*, however, does not have the usual *bhūmi* stages in the absence of *bhūmi-āmalakas* from its edges. At its base, on each face of the *gaṇḍi*, is a *chandraśālā* in low relief. A *bisama* with indented sides caps the *gaṇḍi*. The *mastaka* upon the *bisama* consists of a *beki*, an *āmalaka* and a damaged cylindrical finial (*kalaśa*?). The last member of the *mastaka* has undergone restoration.

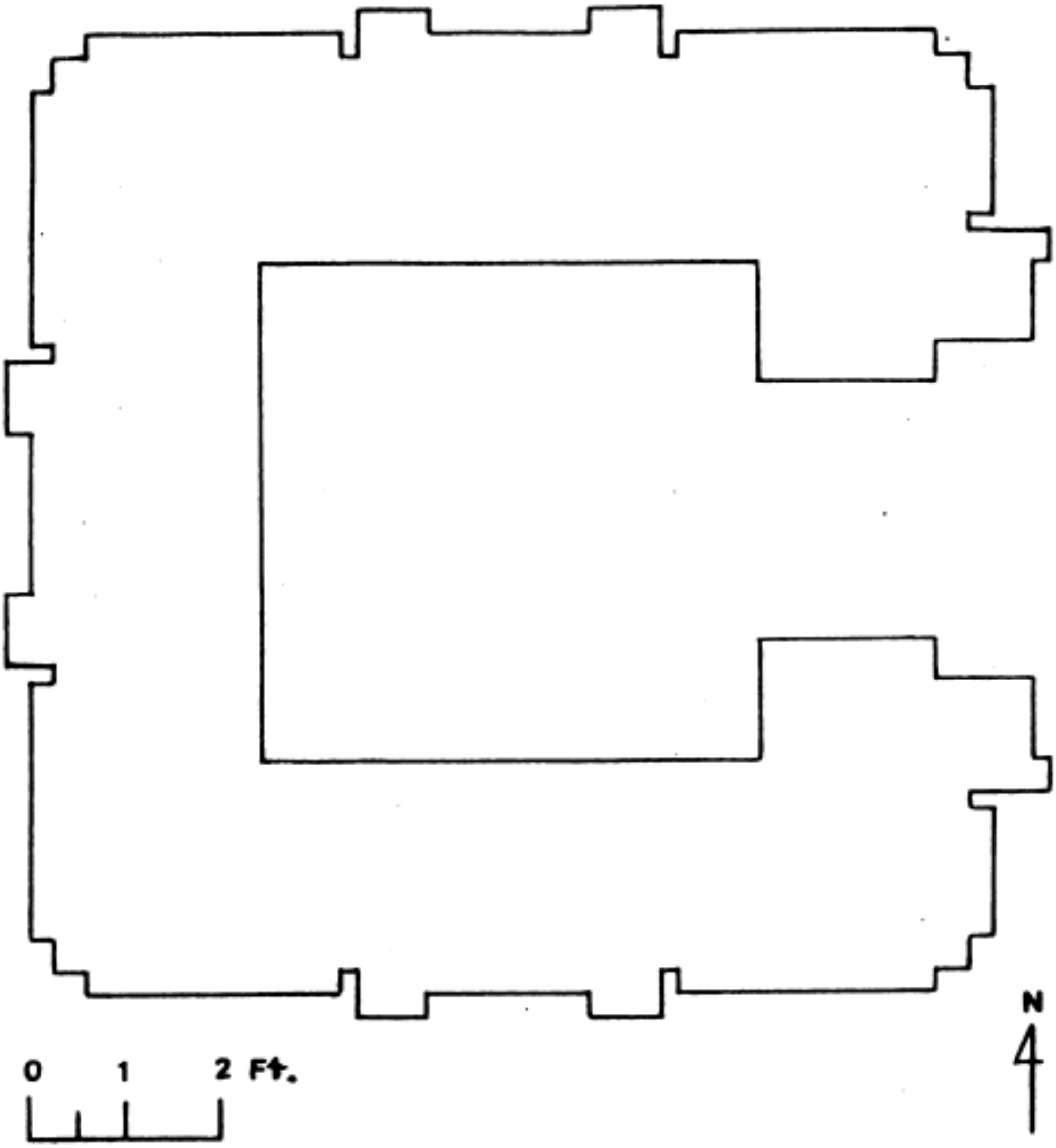


Fig. 1. Naleśvara temple: ground-plan

The door-case of the Naleśvara temple is bereft of any decoration and without the crest figure on the *lalāṭa-bimba* and *dvārapālas* on the jambs. A short passage with the *gamā* above leads to the *garbha-gṛiha*. The side walls of the *garbha-gṛiha* supports a corbelled vault. The *garbha-muda*, made of four stone slabs placed side by side, rests upon the vault. Under the joint of each two stone slabs is an iron bar. Of the three such iron bars, one is missing.

The metric analysis of the temple suggests that some of its parts were built according to the following proportions:

(a) length/width of *garbha-gṛiha* 2·25 and wall-thickness 1;
(b) *rāhā* 1 and *kaṇika* 1;
(c) *pābhāga* 1·5, *jāṅgha* 3 and *baraṇḍa* 1 (approximately).

Of the images, occupying the *rāhā*-niches on the *jāṅgha*, the iconographic features of Gaṇeśa is not discernible. The image of Kārttikeya is weathered and has lost most of the details. As stated before, the third image is beyond recognition.

The Saṅgameśvara temple (Fig. 2 and Pls. 33.6 & 7) stands on the left side of the Nīlakaṇṭheśvara temple. It is an oblong structure belonging to the *khākharā* order. The temple is *pañcha-ratha* on plan on the longer side and *tri-ratha* on the shorter side. The *rathas* are faceted. The three principal segments along its vertical axis are *bāḍa, gaṇḍi* and *mastaka*. The *bāḍa* is *tri-aṅga* being consisted of *pābhāga, jāṅgha* and *baraṇḍa*. The *pābhāga* has three mouldings—*pāda* (*khurā* type), *noli* and *basanta* (*khurā* type). The *pāda* is much wider than the *basanta*. In the *jāṅgha* section, the *ratha-pagas* bear shrine-like niches, all at present empty. The *baraṇḍa* is represented by the recessed *kāṇṭi* frieze with a *khurā* moulding running under it. The *gaṇḍi* is composed of two distinct parts. The lower part consists of two *bhūmi*-stages, each of which has three and a half *bhūmi-baraṇḍikas* and a right-angled *bhūmi-āmalaka*. The upper part exhibits a *khākharā* vault rising in two stages. Between these two stages is a recessed *kāṇṭi*. At the base of the *rāhā*, on each face of the *gaṇḍi*, is a subdued *chandraśālā*. It is somewhat bolder on the façade than on other sides of the *gaṇḍi*. Three *āmalakas*, set in a row upon the ridge of the vaulted *gaṇḍi*, are the only extant remains of the *mastaka*.[7] The *kalaśa* with *triśūla-dhvaja* on each of them seems to be of recent origin.

On the east, the Saṅgameśvara temple had its door-opening. The door-case is a plain frame devoid of the *graha*-panel and *dvārapālas*. As the door-lintel is partially damaged, the presence or absence of any crest figure on the *lalāṭa-bimba* cannot be ascertained. A deep passage, leading from the door, communicates with the *garbha-gṛiha*. Over the passage exists the *gamā*. It is screened from outside by the *sukanāsā* on the face of which is depicted the *chandraśālā*.

The *garbha-gṛiha* is an oblong chamber whose four walls have been brought gradually closer by stepped-out courses and finally sealed by the *garbha-muda*. The

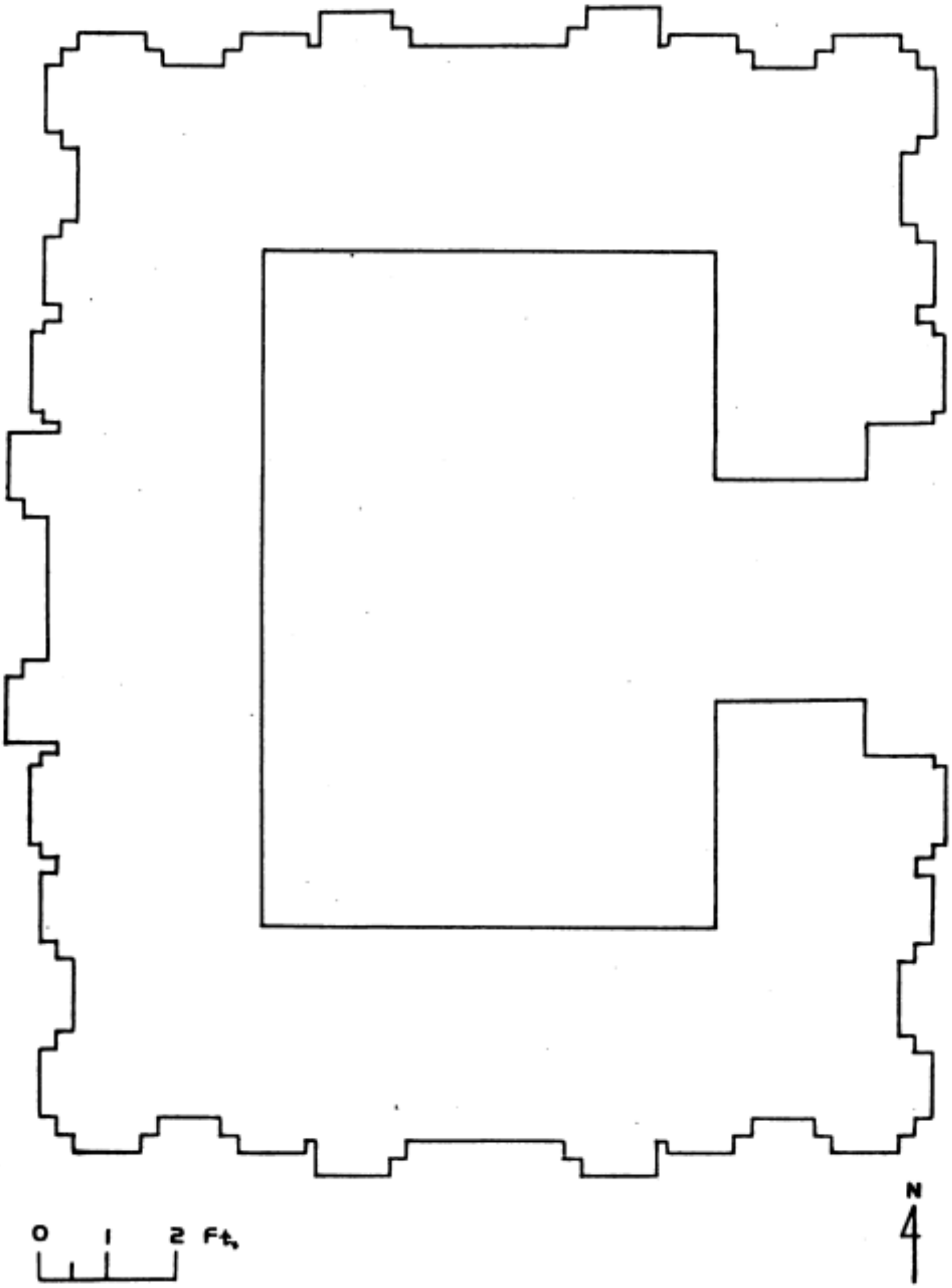


Fig. 2. Saṅgameśvara temple: ground-plan

temple does not have a second ceiling above the *garbha-muda* which happens to be the underside of the capstone. It is not provided with any iron bar for additional support.

Some parts of the temple were built in accordance with the following proportions:

(a) *bāḍa bahala* (longer side) 1·25 and *bāḍa bahala* (shorter-side) 1;
(b) length of *garbha-gṛiha* 1·5 and width of *garbha-gṛiha* 1;
(c) *garbha-gṛiha* (longer side) 3·25 and wall-thickness 1;
(d) *garbha-gṛiha* (shorter side) 2·25 and wall-thickness 1;
(e) longer side—
  rāhā 1·25, *anuratha* ·5 and *kaṇika* 1;
  shorter side—
  rāhā 1·5 and *kaṇika* 1;
(f) *pābhāga* 2, *jāṅgha* 4 and *baraṇḍa* 1.

The Mallikārjuna temple (Fig. 3 and Pls. 33.8 & 9), standing on the left of the Saṅgameśvara temple is a *tri-ratha* temple. Its *kaṇikas* are indented at the flanks, while the *rāhās* show a wide recess in the middle. Indeed, the ground-plan of the Mallikārjuna temple is identical, in every respect, with that of the Naleśvara. The temple has only *bāḍa* and *gaṇḍi* extant. The *bāḍa* is subdivided into *pābhāga*, *jāṅgha* and *baraṇḍa*. The *pābhāga* consists of *pāda* (*khurā* type), *noli* and *basanta* (*khurā* type). The *jāṅgha* has shrine-like niches on its *ratha-pagas*, the niches harbouring divine images associated with Śiva. Gaṇeśa, Kārttikeya and Mahishāsuramardinī Durgā, the three *parivāra-devatās* of Śiva, occupy the *rāhā*-niches respectively on the south, west and north. Images displayed in the *kaṇika*-niches on the left and right of Gaṇeśa are Lakulīśa and Gaṅgādhara Śiva, of Kārttikeya are Ardhanārīśvara and Hari-Hara and of Mahishāsuramardinī Durgā are Aja-Ekapāda and an unidentified *ugra* form of Śiva. Above the image-bearing niches runs the *baraṇḍa* which is made of the *kāṇṭi*-frieze with a *khurā* moulding underlying it. The *gaṇḍi*, demarcated from the *bāḍa* by the *baraṇḍa*, is a curvilinear structure. It rises in three *bhūmi*-stages. Each *bhūmi* consists of three *bhūmi-baraṇḍikas* and a right-angled *bhūmi-āmalaka*. The *bhūmi-āmalaka*, extending from end to end of the *kaṇika*, is divided into two halves. The outer half is ribbed at the edges and the inner is relieved with a series of lotus-petals. A *chandraśālā* is depicted at the base of the *rāhā* on each face of the *gaṇḍi*. On the façade, it is on a little bolder relief because of its execution on the face of the *sukanāsā*. The upper part of the *gaṇḍi* has been renovated with a liberal use of cement plaster.

The door-case of the Mallikārjuna temple is partially damaged. From the extant remains, it seems that the door-jambs once comprised three *śākhās*. They were embellished with decorative bands which extended over the door-lintel as well. From the inner to the outer, these bands were made of motifs like scroll, lotus-petal and scroll. As the inner *śākhā*, on either side of the door, has almost entirely gone, it is not possible to

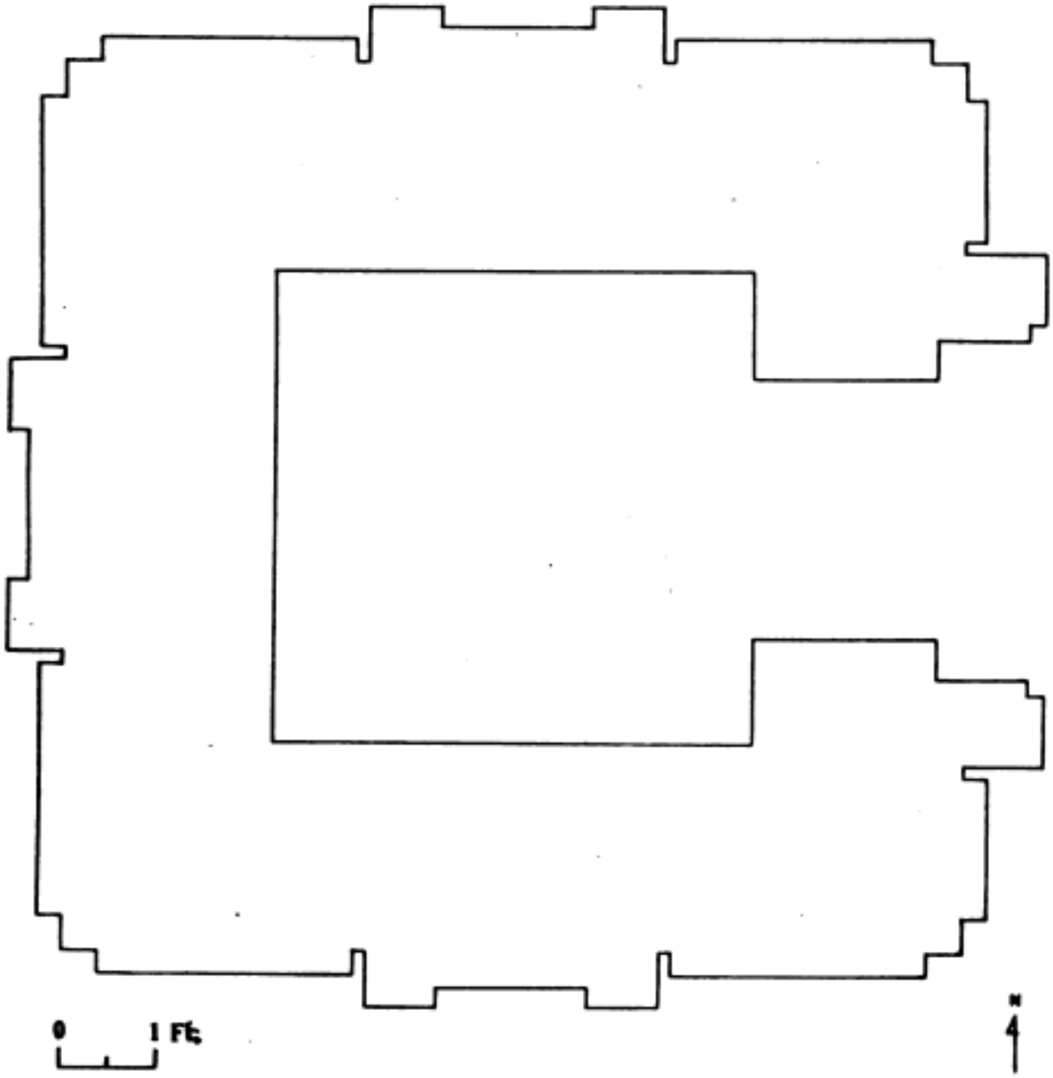


Fig. 3. Mallikārjuna temple: ground-plan

ascertain the characteristics of the *dvārapāla*, if there was any, at its base. Similarly, the damaged door-lintel leaves one to conjecture whether its *lalāṭa-bimba* housed a crest figure. The extant part of the door-lintel gives evidence of the presence of a *graha*-panel on it. In this panel, only five *grahas*, *viz.*, Sūrya, Soma, Maṅgala, Budha and Bṛihaspáti, are preserved. Gaṅgā and Yamunā, the two river-goddesses, occupy a niche each in the *jāṅgha* respectively on the right and left of the door-case.

From the door-opening, a short passage, surmounted by the *gamā*, leads to the *garbha-gṛiha*. The water outlet is provided through its northern wall. The four walls of the sanctuary have been brought sufficiently close by oversailing courses of masonry to support the slabs of the *garbha-muda*. There is no iron bar to provide any additional support to the *garbha-muda*. The temple has no other ceiling above the *garbha-muda*.

The ratio of some parts of the Mallikārjuna temple were found to be as follows:

(a) length/width of *garbha-gṛiha* 2·5 and wall-thickness 1;

(b) *rāhā* 1 and *kaṇika* 1;

(c) *pābhāga* 2, *jāṅgha* 3 and *baraṇḍa* 1.

II

It has been observed before that the images, if ever embellishing the Saṅgameśvara temple, have disappeared from its wall. Those on the Naleśvara are so eroded as to make their iconographic features beyond recognition. Only the image of Kārttikeya, in the *parivāradevatā*-niche on the west side seems to be sitting in *ardha-paryaṅkāsana* and holding a spear in the left hand. The object in his right hand is indistinct (Pl. 33.5). On the Mallikārjuna temple the images are comparatively in a fair degree of preservation. In the description of these images the following abbreviations have been used:

u.r. = upper right hand;
1.r. = lower right hand;
u.1. = upper left hand;
1.1. = lower left hand.

Lakulīśa (Pl. 33.10), the Śaiva Pāśupata saint, is placed in the *kaṇika* niche on the left of the *rāhā* on the south. He is seated on a *viśva-padma* in *utkuṭikāsana* with a *yoga-paṭṭa* tied around his knees. He is two-handed, the hands being disposed in the *jñāna-vyākhyāna* pose. The *lakuṭa* is placed between the folds of his left fore arm and upper arm. He is haloed and *ūrdhvaliṅga*. His four disciples are accompanying him. Two of them are seated on his two sides, while two others are uplifted to the right and left corners of the stele by long stalks of their lotus-seats.

Gaṇeśa (Pl. 33.11) occupies the *pārśvadevatā* niche on the south. The god is haloed, four-handed and seated in *ardha-paryaṅkāsana* on a *viśva-padma*. The attributes in his hands are a tusk (u.r.), an axe (u.1.), a rosary (1.r.) and sweetmeat (1.1.).

The mouse, the mount, is shown under his seat.

Gaṅgādhara Śiva (Pl. 33.12) is in the *kaṇika* niche on the right of the *rāhā* on the south. The god is standing, four-handed and wearing a *sarpa-kuṇḍala* in the right ear. The attributes in his three hands are a trident (u.1.), a damaged object (1.r.) and a pot (1.1.), while the upper right hand is in the act of releasing Gaṅgā from the matted locks. A tiny image of Gaṅgā is shown on the top right corner as being released from the matted hair of Śiva. The river-goddess appears again as standing near the left foot of Śiva to suggest her descent on the earth. The kneeling figure of Bhagīratha is present on the right side of Śiva.

Ardhanārīśvara (Pl. 33.13) is in the *kaṇika* niche on the left of the *rāhā* on the west. The god is standing and four-handed. The bull mount of Śiva and the lion mount of Devī stand respectively on the right and left of the image. The hands of the god display a trident (u.r.), a mirror (u.1.), *varada-mudrā* (1.r.) and a flower (1.1.).

Kārttikeya (Pl. 33.14) is fixed in the *pārśvadevatā* niche on the west. The god is haloed and seated in *ardha-paryaṅkāsana* on a throne. His peacock mount is present under the seat. He holds a spear in his right hand and a bell in the left.

Hari-Hara (Pl. 33.15) is placed in the *kaṇika* niche on the right side of the *rāhā* on the west. The god is standing, haloed, four-handed and *ūrdhvaliṅga*. The attributes in his hands are a trident (u.r.), a conch (u.1.), a damaged attribute (1.r.) and a mace (1.1.).

Aja-Ekapāda (Pl. 33.16), representing an *ugra* aspect of Śiva, is placed in the *kaṇika* niche on the left of the *rāhā* on the north. The god is haloed, four-handed and *ūrdhvaliṅga*. In his hands, he holds a *ḍamaru* (u.r.), a damaged attribute (u.1.), a trident (1.r.) and an indistinct object (1.1.).

Mahishāsuramardinī Durgā (Pl. 33.17) is placed in the *pārśvadevatā* niche on the north. The goddess is eight-handed and shown in the act of killing Mahishāsura who is coming out in the anthropomorphic form from the decapitated body of the buffalo. Devī carries in her eight hands (clockwise from the lower right to the lower left) a discus, a spear which pierces the body of the demon, a sword, an arrow (shown as being taken out of the quiver attached to her right shoulder), a noose, an elliptical shield with a trident and a spike fixed to its top and bottom respectively, a bow and an axe.

The unidentifiable *ugra* form of Śiva (Pl. 33.18) is placed in the *kaṇika* niche to the left side of the *rāhā* on the north. The god is standing, haloed, four-handed and wearing a *sarpa-kuṇḍala* in the right ear. His hands display a flower (u.r.), an axe (u.1.), *varada-mudrā* (u.r.) and a pot (?) (1.1.).

Gaṅgā (Pl. 33.19) occupies the *jāṅgha* niche on the right flank of the door. The river-goddess stands on her *makara* mount. Her right hand is akimbo and the left one carries a vase.

Yamunā (Pl. 33.20) occupies the *jāṅgha* niche on the left flank of the door. The river goddess stands on her tortoise mount. Her left hand is akimbo and the right hand carries a vase.

As regards the five extant *grahas* on the door-lintel, all of them are seated in *padmāsana*. Sūrya, as usual, is holding stalks of two full-bloom lotuses in his two hands and the rest carry a rosary and a pot in their respective right and left hands.

III

In the Kaliṅga country,[8] comprising Districts Srikakulam, Vizianagaram and Visakhapatnam of Andhra Pradesh and Districts Ganjam and Koraput of Orissa, a sub-regional version of Orissan *rekha* order was developed under the aegis of the Eastern Gaṅgas.[9] The Mallikārjuna and the Naleśvara temples together with the Nīlakaṇṭheśvara belong to this sub-regional version. The Naleśvara, however, is unique in having its *gandi* without *bhūmi* divisions. Three temples of Kaliṅga, *viz*., Madhukeśvara and Bhīmeśvara at Mukhalingam (District Srikakulam, Andhra Pradesh) and Yudhishṭhira on the Mahendragiri (District Ganjam, Orissa), also have no *bhūmi* divisions in the *gaṇḍi*, but the *baraṇḍika* mouldings, relieving the *gaṇḍi* of these temples, are not as closely spaced as these are on the Naleśvara and other temples of the *rekha* order. However, Temple No. 15 at Ranipur-Jharial has its *gaṇḍi* disposed in the fashion of that of the Naleśvara.[10] In the Mallikārjuna, the rise of the *gaṇḍi* in three *bhūmi* stages is a feature which is not commonly met with. Three other known examples are the temple of the Paramaguru family and the buried temple in the Yameśvara temple-compound in Bhubaneswar and the Liṅgarāja temple at Bhowanipur (District Cuttack, Orissa). The smallness of these temples may explain the three *bhūmi* rise of their *gaṇḍi*.

All the temples at Narayanapuram are provided with one ceiling. This characteristic, common in Kaliṅga, is usually absent from the temples in Utkala and Kosala, comprising the lower and upper Mahanadi valleys respectively.

The metric analysis of the Naleśvara and the Mallikārjuna temples shows that they were built according to an identical rules of proportion. The minor discrepancy, that is there, may have crept at the time of their construction. However, the relative proportions of length/width of *garbha-gṛiha* and wall-thickness, and of *pābhāga*, *jāṅgha* and *baraṇḍa* of these two temples do not seem to have ever been popular in Utkala. On the other hand, they share the 1 : 1 ratio of *rāhā* and *kaṇika* in common with the early *tri-ratha* temples of Utkala.

The placement of *pārśvadevatās* on the Mallikārjuna temple and also probably on the Naleśvara agreed with the practice followed in Utkala, Kosala and Kaliṅga. As regards the placement of other images on the *jāṅgha*, the Mallikārjuna followed a stereotype current in Kaliṅga. It thus displays Śiva in his benign form on the south, composite form on the west and fierce form on the north. Though this stereotype appears to have been known in Utkala, its application was not universal.[11] In conformity with the prevailing practice, a *graha*-panel is present on the door-lintel of the Mallikārjuna temple. Apparently, like similar temples of Kaliṅga, the damaged panel contained nine planets, of which only five are extant. The Mallikārjuna further adheres to the Kaliṅgan convention having Gaṅgā and Yamunā placed in niches on the *jāṅgha* and not at the bases of door-jambs.[12]

The Saṅgameśvara at Narayanapuram belongs to Class I type of the three varieties of *khākharā* temples recognised by Debala Mitra.[13] Like other temples of this type, its *khākharā* vault is a simple cylinder with the length remaining constant on all horizontal planes and width going on diminishing. According to Mitra, the available evidence indicates that the temple of the *khākharā* order in Orissa belonged to the Śākta cult.[14] At the same time, the author comments, 'Whether this is invariably true or not, cannot be stated until all the available *khākharā* temples of Orissa are recorded.'[15] Though all the known living *khākharā* temples, including those noticed by Mitra,[16] are of Śākta affiliation, the Saṅgameśvara is dedicated to Śiva. It may be mentioned in this connection that the first two of the three *khākharā* shrines on the south, west and north of the *baḍa deula* of the Madhukeśvara at Mukhalingam house Gaṇeśa and Kārttikeya. For the same gods were meant two *khākharā* shrines of a Śaiva temple complex at Joshimath (District Chamoli, U.P.), the complex being a duplication of the Madhukeśvara in respect of general plan and layout.

The *Vishṇudharmottara*[17] lays down that a *valabhī prāsāda* (i.e. a building of the *khākharā* type) should have its length thrice its width while, according to the *Bhubanapradīpa*,[18] a *vāstu* text of Orissa, the length-width ratio of some varieties of *khākharā* shrines should be 1·33 to 1. The builders of the Saṅgameśvara were guided by none of these prescriptions.

The Saṅgameśvara is unusual in having its shorter side built on a *tri-ratha* and the longer side on a *pañcha-ratha* plan. Though in all the known temples with a *pañcha-ratha* plan, the *pābhāga* consists of not less than four mouldings and the *kumbha* is one of the *pābhāga* mouldings, the Saṅgameśvara has a three-moulding *pābhāga* and the *noli* in its *pābhāga* has not been replaced by the *kumbha*.

IV

Of the four temples at Narayanapuram, the Nīlakaṇṭheśvara bears several inscriptions. The earliest of these inscriptions is a donative record dated in 1017 Śaka (A.D. 1095).[19] Therefore, the Nīlakaṇṭheśvara and, in all likelihood, the three other temples standing by its sides were built before A.D. 1095. Indeed, some of the features exhibited by them indicate that they were built long before the 11th century. Reference may in this connection be made to their *tri-ratha* plan (cf. Naleśvara and Mallikārjuna), three-moulding *pābhāga*, presence of *noli* among the *pābhāga* mouldings, *baraṇḍa* indicated by the *kāṇṭi* frieze (cf. Naleśvara, Mallikārjuna and Saṅgameśvara), rightangled *bhūmi-āmalaka* (cf. Mallikārjuna and Saṅgameśvara) and a flattish *āmalaka* without a pronounced *khapuri* (cf. Naleśvara and Saṅgameśvara). None of these characteristics appears as a regular architectural element long after the commencement of the 10th century. Some of these elements reappeared sporadically on temples datable after the 10th century but that was in contravention of the contemporary building tradition.[20]

In pre-9th century temples of Utkala, the ratio of length/width of *garbha-gṛiha* and wall-thickness was in general 2 to 1. Thereafter, a tendency to reduce the wall-thickness in relation to the length/width of *garbha-gṛiha* was noticeable. The temples at Narayanapuram, making this tendency evident, therefore, should be assigned to a date later than A.D. 800. The use of iron-bar under the *garbha-muda* of the Naleśvara is an innovation of the post-8th century period.

Images in the *jāṅgha* niches of the Naleśvara and the Mallikārjuna and obviously the Saṅgameśvara, as its empty niches would suggest, had been executed separately before they were placed in their present position. This practice was discontinued in Utkala after the 7th century to be revived again during the 9th.[21] On the Mallikārjuna, Devī is shown as killing Mahishāsura who is coming out of the decapitated body of the buffalo and Gaṇeśa is accompanied by his mouse mount. The anthropomorphic representation of Mahishāsura and the mouse mount of Gaṇeśa were unknown in Utkala before the 9th century.[22]

In the history of Orissan temple architecture, the change from *tri-ratha* to *pañcha-ratha* plan seems to have taken place sometime during the 10th century. The Saṅgameśvara being *tri-ratha* on one side and *pañcha-ratha* on the other belongs to a transitional phase so far as the ground-plan is concerned. In respect of its other features, the Saṅgameśvara is not very different from the Naleśvara and the Mallikārjuna. Under the circumstances, these three temples should be taken as near contemporaries and assigned to a period around A.D. 900. By this date, the number of *pābhāga*-mouldings had increased from three to four. Therefore, the three-moulding *pābhāga* of these temples may suggest the lingering of a tradition during a period when it was almost forgotten.[23]

Postscript

In the recently-published *Encyclopaedia of Indian Temple Architecture, North India, Period of Early Maturity, c. A.D. 700-900*, Vol. II, Part 2, ed. Michael W. Meister and M. A. Dhaky, New Delhi and Princeton, 1991, Chapter 44, written by Debala Mitra, contains a short account of the temples at Narayanapuram (pp. 444f.). Mitra suggests, without referring to any evidence, that the Saṅgameśvara was a Śākta shrine before it was converted into a temple of Śiva.

Glossary

āmalaka: spheroid ribbed at the edges.

ardha-paryaṅkāsana: sitting posture in which one leg, usually the left, is tucked up on the seat, while the right dangles down along it.

bāḍa: wall.

bāḍa bahala: length of wall.

baḍa deula: principal structure enshrining the presiding deity of a temple.

baraṇḍa: entablature.

baraṇḍika: mouldings serrating *gaṇḍi*.

basanta: uppermost moulding of *pābhāga*.

beki: cylindrical neck of *mastaka*.

bhūmi: horizontal stage of *gaṇḍi*.

bhūmi-āmalaka: sectional *āmalaka* used to demarcate one *bhūmi* from another in the *kaṇika* of *gaṇḍi*.

bhūmi-baraṇḍika: moulding in a *bhūmi*.

bisama: capstone on *gaṇḍi*.

chandraśālā: large half-moon shaped gable at the base of *rāhā* of *gaṇḍi*.

ḍamaru: kettle-drum.

gamā: corbelled arch above the door-lintel.

gaṇḍi: tower above *bāḍa*.

garbha-muda: ceiling above *garbha-gṛiha*.

garbha-gṛiha: sanctum chamber.

graha: planet.

jāṅgha: section of *bāḍa* between *pābhāga* and *baraṇḍa*.

jñāna-vyākhyāna: hand-pose combining *jñāna* and *vyākhyāna mudrās*. In the former, tips of the middle finger and thumb are joined together and held near the heart, with the palm turned towards the heart. In the latter, tips of the thumb and forefinger are made to touch each other, so as to form a circle, the other finger being kept open. The palm of the hand is made to face the front.

kalaśa: jar.

kaṇika: outermost segment of a temple with more than one *ratha*.

kāṇṭi: recess.

khākharā: rectangular parallelopiped with *S*-like vertical sides.

khapuri: flattish bell-shaped member upon *āmalaka*.

khurā: hoof-shaped moulding.

kumbha: pitcher-shaped moulding.

lakuṭa: club.

lalāṭa-bimba: rectangular boss on the door-lintel.

liṅgam: phallic representation of Śiva.

makara: mythical creature with the head of a crocodile and body either of a fish or beast.

mastaka: set of elements crowning *gaṇḍi*.

mukha-śālā: forward hall.

noli: moulding of convex semicircular profile.

pābhāga: dado.

pañcha-ratha: s.v. *ratha*.

parivāradevatā: member belonging to the family of a given deity.

pārśvadevatā: accessory deities, occupying the *rāhā* niches of a temple with whose presiding deity they are usually associated.
rāhā: central projection.
ratha, ratha-paga: segments produced upon the face of a temple by projecting part of it to a more forward plane; *tri-*, temple with the wall divided into three segments; *pañcha-*, temple with the wall divided into five segments.
rekha: order of temple with a curvilinear tower presenting the appearance of a continuous line.
śākhā: branch.
sarpa-kuṇḍala: snake as ear-ornament.
sukanāsā: integrated projection from the base of *gaṇḍī* constituting a gabled roof over the vestibule.
tri-aṅga: division of *bāḍa* into three segments along the vertical axis.
tri-ratha: s.v. *ratha.*
triśūla: trident.
ugra: fierce.
ūrdhvaliṅga: erect penis.
utkuṭikāsana: sitting posture in which legs are crossed with heels kept close to the bottom and knees raised above the seat.
varada-mudrā: hand-pose showing the palm turned to the front and extended downward.
vāstu: relating to architecture.
viśva-padma: double-petalled lotus with the upper set of petals turning upward and the lower drooping downward.
yoga-paṭṭa: cloth-band.

Notes and references

1. The village is approachable from Bobbili (on the Vizianagaram-Titlagarh section of South-Eastern Railway) *via* Balijipeta, the distance between the two being 26 km.
2. Debala Mitra, 'Nīlakaṇṭheśvara Temple at Narayanapuram (District Vizianagaram, Andhra Pradesh)', *Investigating Indian Art*, ed. Marianne Yaldiz and Wibke Lobo, (Berlin, 1987), p.191.
3. For a general survey of these temples see G. Venkata Ramayya, *The Temples at Narayanapuram* (unpublished Ph. D. thesis, Andhra University, 1984).
4. For the canonical classification of Orissan temples see N. K. Bose, *Canons of Orissan Architecture* (Calcutta, 1932), pp. 78ff.
5. Mitra, *op. cit.*, pp. 191-211.
6. *Loc. cit.*
7. According to the locally available information, the Saṅgameśvara temple had originally been crowned by three *āmalakas* which fell on the ground and were refixed in their former position subsequently.
8. For a discussion on Kaliṅga see D. R. Das, 'The Saṅgameśvara Temple at Sangam (Andhra Pradesh)' to be published in the *Prof. B. K. Gururaja Rao Felicitation Volume*, ed. K. V. Ramesh *et al.*
9. In respect of metrology, structural and decorative details, and selection, placement and iconographic features of images, the Kaliṅga builders, notwithstanding their Orissan affiliation, developed a local tradition. See D. R. Das, 'Temples at Jayati (Andhra Pradesh)', *Archaeology and History, Essays in Memory of Sh. A. Ghosh*, ed. B. M. Pande and B. D. Chattopadhyaya, (Delhi, 1987), p. 528.
10. D. R. Das, *Temples of Ranipur-Jharial* (Calcutta, 1990), pp. 15f. and Pls. 22 & 23.
11. *Idem*, 'Saiva Images on Orissan Temple Walls', *Journal of Ancient Indian History* (abv. *JAIH*), Vol. XII, p. 108.

12. Probably under the influence from Kaliṅga, some temples in Utkala, e.g. Svapneśvara at Kualo, Bhṛiṅgeśvara at Bajrakot (District Dhenkanal), Liṅgarāja at Bhowanipur and Siṁhanātha at Gopinathpur (District Cuttack), Gaṅgā and Yamunā were accommodated in niches on the *jāṅgha*.
13. Debala Mitra, 'Four Little-known Khakhara Temples of Orissa', *Journal of the Asiatic Society*, 1960, pp. 13f.
14. *Ibid.*, p. 2.
15. *Ibid.*, p. 2, n. 5.
16. Among the *khākharā* temples left unnoticed by Mitra, one, belonging to the Pātāleśvara temple complex at Paikapara (Koraput District), is a shrine of Saptamātṛikās. Another ruined Saptamatṛikā shrine of an oblong plan at Belkhandi (Kalahandi District) was apparently of the *khākharā* type. See D. R. Das and S. S. Biswas, 'Three Early Somavamsi Temple-sites of Orissa', *Indian Archaeological Heritage* (*Sh. K. V. Soundara Rajan Felicitation Volume*), ed. C. Margabandhu *et al*, (Delhi, 1991), pp. 513ff.
17. Ch. LXXXVI, 21.
18. Bose, *op. cit.*, pp. 171ff.
19. Venkata Ramayya, *loc. cit.*
20. Among the temples datable after the 10th century, the Rājārāṇī (Bhubaneswar) and the Indralāth (Ranipur-Jharial, District Bolangir) have rightangled *bhūmi-āmalakas* and the Pārvatī (Bhubaneswar) and the Lakshmī (Puri) have their respective *baraṇḍas* indicated by the *kāṇṭi*.
21. K. C. Panigrahi, *Archaeological Remains at Bhubaneswar* (Bombay etc., 1961), p. 150 and D. R. Das, 'The Lingaraja Temple at Bhowanipur (Orissa)', *JAIH*, Vol. XIII, p. 78.
22. Panigrahi, *op. cit.*, pp. 126f.
23. At Gallavalli (District Vizianagaram, Andhra Pradesh), the Kāmeśvara temple also has a three-moulding *pābhāga* of the type found at Narayanapuram. On the basis of iconometric analysis, K. Jaya Sree ('Chronology of the Temple at Gallavalli: An Iconometric Study', *JAIH*, Vol. XVIII, p. 59) places the temple during the first half of the 9th century and J. Vijaya Lakshmi and M. Krishnakumari (*Kāmeśvara Temple at Gallavalli*, Delhi, 1991, p. 127) during the first half of the 11th century. The Gallavalli copper-plate inscription of 393 Gaṅga Year records that Manujendravarman granted three villages to lord Guṇḍeśvara and made Sāmaveda Bhagavanta as trustee of the grant (N. Ramesan, 'Gallavalli Copper-plate Inscription of King Manujendravarman of Eastern Ganga Dynasty', *Journal of Andhra Historical Research Society*, Vol. XX, pp. 161ff.). As the Gaṅga era commenced sometime between A.D. 496 and 498 (D. C. Sircar, *Indian Epigraphy*, Delhi, 1965, p. 291), the temple of Guṇḍeśvara, identifiable with the Kāmeśvara in the absence of any other old temple at Gallavalli, must have been built before the close of the 9th century. The Divyeśvara temple at Sarapalli and the two shrines of Durgā and Śiva temple at Jayati (District Vizianagaram, Andhra Pradesh), assignable to a date not far removed from that of the Kāmeśvara temple are also characterized by a three-moulding *pābhāga*.

Acknowledgements

The author wishes to express his grateful thanks to Dr. B. Masthanaiah, Reader, Department of History & Archaeology, Andhra University, and his student, R. Srinivasamurty, for extending help to visit Narayanapuram.

34

Coinage of Dvārāvatī in South-east Asia and the Kharoshṭī-Brāhmī script

B.N. Mukherjee

The kingdom of Dvārāvatī was founded by the Mon people in the lower valley of the Menam river in Thailand. Its birth probably coincided with the end of the domination of Fu-nan in *inter alia* Thailand in the sixth century A.D.[1] The core of the kingdom probably extended from Lopburi (or Suphanburi) in the north, Ratchaburi in the west (or south-west), Prachinburi in the east and the Gulf of Siam or Thailand in the south.[2] At times it could have extended from the border of Cambodia to the Bay of Bengal.[3] Its capital was first at Nakhon Pathom and later at Lopburi (Lavapuri).[4]

It appears from the Pāli chronicles *Chāmadevīvaṁsa* and *Jinakālamālinī* that Chāmadevī, the daughter of the king of Lavanagara or Lavapura (Lopburi) and a spouse, probably a widow, of the king of Ramañña-nagara (in lower Burma), came from her father's capital with a large number of Buddhist teachers, and was placed on the throne of Haripuñjaya (modern Lamphun) in northern Thailand.[5] Thus the kingdom of Dvārāvatī was strong enough to spread its influence over other parts of Thailand.

The kingdom of Dvārāvatī sent embassies to China in A.D. 638 and 639.[6] Probably Dvārāvatī participated in the maritime commerce between India and China. In the second quarter of the seventh century A.D. Hsüan-tsang gathered information about To-lo-po-ti or Dvārāvatī and five countries in south-east Asia situated beyond 'large oceans, mountains and valleys.'[7] Obviously Samataṭa (including the Noakhali and Comilla regions of Bangladesh) had commercial and cultural contacts with these kingdoms, situated apparently in South-east Asia.[8]

The kingdom of Dvārāvatī flourished till the tenth century A.D. when the kings of Kambuja extended their authority over the lower Menam valley. The Kambuja supremacy in the region declined with the establishment of kingdoms by the Thais in the territory of Thailand in the thirteenth century A.D.[9]

The relevant archaeological remains, found at different sites (like Nakhon Pathom, U Thong, Phra Prathon, etc.) in the above-noted territory and ascribable to different dates within the above-mentioned period, include inscriptions, coins, sculptures, etc.[10] It appears from these finds that the dominant religion of the kingdom was Hīnayāna Buddhism. However, in the eighth-ninth century A.D. Mahāyāna was also practised.[11] There might have been also some followers of Brāhmaṇical cults.[12] The sculptural style formulated within the kingdom was extended to other areas of the present-day Thailand.[13] The style itself betrays the impact of the Gupta idiom.[14]

The Indian influence could have reached Thailand *via* land-routes through Arakan and lower Burma or through sea-routes. Hsüan-tsang noted the connection of Samataṭa with countries beyond the sea (i.e. Bay of Bengal) like Shih-li-ch'a-ta-lo or Śrīkshetra (around Prome on the Irrawaddy, and at times including areas near the sea, as suggested by I-ching), Ka-mo-lang-ka or Kāmalaṅkā (incorporating Pegu and the Irrawaddy delta or Lankasuka of I-ching around Ligor in about the middle of the Malay peninsula?), To-lo-po-ti or Dvārāvatī (in central Thailand, as noted above), I-shang-na-pu-lo or Īśānapura (Cambodia), Mo-ha-chan-p'o or Mahāchampā (part of Vietnam) and Yen-mo-na-chou (?).[15] It is interesting to note that analogous series of uninscribed silver coins datable (fully or partly) to the pre-Mon period in Dvārāvatī (before the middle of the sixth century A.D.)[16] have been recovered through chance-finds and excavations in the areas of Arakan, Śrīkshetra, Dvārāvatī and Īśānapura (or earlier Fu-nan).[17] The coinages of these regions were connected by types, metal and metrology.[18] Apparently five pieces of Arakanese coins of full weight (about 8 gm.) were exchangeable with five unit pieces (of about 10 gm. each) belonging to the Prome area, lower Thailand and Cambodia (Fu-nan).[19] The most common device of the coins of the last three regions was "a temple-like structure with a figure inside."[20] If the evolution of the representation of this device is followed carefully, there will be no doubt about its origin from the tripartite symbol (with or without representations of the sun and the moon above it) on the uninscribed Arakanese coins (Pl. 34. 1 and 1a).[21] The latter seems to be a combination of an early Indian *śrīvatsa* symbol and the device of a trident (*triśūla*).[22] While the outline of the *śrīvatsa* symbol developed into that of a structure, the inner prong of the trident was transformed into a figure (simulating a human form or some other device).[23] Similar developments of the *śrīvatsa* symbol took place in the Indian subcontinent itself[24] (compare Pl. 34.1a with Pl. 34.2a).

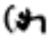
Thus an analogous system of coinage spread from Arakan to Fu-nan before the Mon period in Dvārāvatī. Indian influences in different spheres (including writing, religion and culture) percolated through the same overland routes.

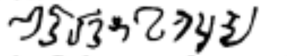
The influences could have also spread through sea-routes. The maritime relations of the eastern and peninsular India with South-east Asia in early Christian centuries are well attested.[25] The evidence of Hsüan-tsang indicates eastern India's maritime connection with lower Thailand.[26]

The uninscribed silver coins (bearing "conch: the so-called temple", "deer or rather horse: the so-called temple", "conch: the so-called temple with the sun and moon above and a fish below", "a pitcher with leaves sprouting out of it" on both the sides, and a conch on the obverse as well as reverse) (Pls. 34.2-4) have been recovered from *inter alia* several sites of the Dvārāvatī kingdom (like Nakhon Pathom, U Thong, Supanburi, etc.).[27] Since analogous series of coins have been found in deposits of the Fu-nan[28] period in Cambodia, the coinage in Thailand might have been initiated in the age of domination by Fu-nan, which ended by the middle of the sixth century A.D. The fact that the finds include very small pieces, weighing less than 0·100 gm. and corresponding to the hundredth fraction of the full unit of about 10 gm.,[29] indicates the use of coins for even very ordinary transactions.

The pre-Dvārāvatī coinage might well have continued during the Mon period in the kingdom of Dvārāvatī.[30] The territory also struck inscribed silver coins bearing (i) "a pitcher with sprouting leaves: a legend", (ii) "a cow and a calf: a legend" (Pl. 34.5), (iii) "a wheel: a legend", and (iv) "an inscription on both the sides".[31] The coins of the series no. (iv) bearing the name Lavapura in Brāhmī letters of about sixth century A.D. are obviously the issues of the city of that name (Lopburi of the present day).[32] The Brāhmī legend on the pieces of the series no. (iii), reading *Sri-Sucharitavikorana* (=*Śrī-Sucharita-Vikarṇa* ?), is palaeographically datable to *c.* sixth or seventh century A.D.[33]

The legend in two lines in the Brāhmī script on the pieces of the series (i) and (ii) can be read as (line i) *Śrī-Dvārāvat(ī)* (line ii)-*śvara puṇya* (=*Śrī-Dvārāvatīśvaraḥ puṇyaḥ*), meaning "the illustrious lord of Dvārāvatī, the Righteous (or Just)" (Pls. 34.5-6).[34] The forms of the letter *ra* and *va* betrays the influence of the early Pallava variety of the Brāhmī script of *c.* sixth-seventh century A.D.[35] The old form of *ṇa* found here is noticeable also in certain Pallava inscriptions and South-east Asian records of the sixth-seventh century A.D.[36]

The legend on a recently-noticed piece, unearthed in Thailand, has some palaeographic peculiarities (Pl. 34.7).[37] The inscription is in two lines. The first letter is an ornamented form of the Brāhmī letter *śa* with medial *ī* and subscript *r*. However, the horizontal bar across the central part of the usually-noticeable form of *śa* is absent. The base of the medial sign for *ī* at the top of the letter is left open. The second letter is Brāhmī *dā* (*da* + *ā*) with the lower end curved and looking like a semicircle. The third letter may be taken as an early Pallava variety of *ra*[38] with the sign for medial *ā* added to it. Nearly similar forms of the letter can be seen in certain South-east Asian records of *c.* sixth or seventh century A.D.[39] The next letter can be intelligibly read only as Kharoshṭī *va* with a semicircular curve at the bottom[40] ( ). The last character of line 1 may perhaps be Kharoshṭī *ta* with medial *i* placed across its middle (nearly horizontal) section[41] (). The first figure of line 2 is surely a compound letter consisting of Kharoshṭī *śa* and *va*. The next letter can be doubtfully taken as a variety of Kharoshṭī *ra*[42] with the stroke for medial *o* placed to the left of the main figure but not attached to it.[43] The third letter is Brāhmī *pa* with the sign of medial *u*. The last character is surely *ṇya* (i.e. *ṇa* with the subscript *y*) of the Brāhmī alphabet, as noticeable in the coin legend discussed in the last paragraph. The curved lower ends of several letters may allude to the influence of the style of writing south Indian Brāhmī.[44] However, semicircular curves at the bottom of letters are noticed also in certain Kharoshtī inscriptions.[45]

It appears that the legend in question () is written in a mixed script consising of Kharoshṭī and Brāhmī letters. It can be deciphered as *Śr(ī)-Dārāvatiśvaro puṇya*, meaning "the illustrious lord of Dvārāvatī, the Righteous (or Just)". Since the legend refers to the king of Dvārāvatī, which kingdom was founded only after the end of the Fu-nanese domination by about the middle of the sixth century A.D.,[46] the date of the legend cannot be earlier than the late sixth or early seventh century A.D.

The above discussion demonstrates that Cha-ame Kaewglai is not correct in reading the coin-legend as a Kharoshṭī inscription.[47] The legend is in a "mixed" script.

We have already shown that such a mixed script (probably referred to as Vimiśrita-lipi in the *Lalitavistara*) was in use in ancient Vaṅga (including the lower West Bengal and coastal Bangladesh up to the Padma) from about the second half of the first century A.D. to about early fifth century A.D.[48] It was developed there by a powerful community hailing from the Kharoshṭī-using zone in the north-western section of the Indian subcontinent.[49] The economically and politically powerful immigrants from the north-west used Kharoshṭī and the mixed script (called by us Kharoshṭī-Brāhmī) and the north-western Prākṛit for writing their documents in Vaṅga.[50] They developed commercial relations with South-east Asia, exporting, among others, Central Asian horses.[51] The horse trade was fully developed by *c.* third century A.D.[52] The Kharoshṭī-Brāhmī using traders probably had a settlement at or near Oc-Eo in the Mekong delta, where was an emporium of the Fu-nan kingdom during that period.[53] It is now a part of south Vietnam.

We have elsewhere noticed a Kharoshṭī-Brāhmī legend of *c.* fourth-fifth century A.D. on a seal discovered at U Thong in central Thailand.[54] A Kharoshṭī-Brāhmī inscription can be seen on a rectangular carnelian bead (0·9×0·45 cm.) found at Khao Samkaeo (Chum-phon province of Thailand). It has been taken as a Brāhmī inscription and read as *Akhidaro*.[55] However, the third letter is surely Kharoshṭī *sa*. The last letter is probably Kharoshṭī *ta* with the sign of medial *i*. So the legend can be read as *Akhisati*. It probably refers to a personal name. The comparatively-early forms of the Brāhmī letters *a* and *kha* tend to place the legend some time in the second or early third century A.D.[56] The open mouth of the Kharoshṭī letter *sa*, on the other hand, indicates a date in or after the first century A.D.[57] Thus the carnelian bead in question may be dated to the second or third century A.D.

Some early inscriptions engraved on carnelian seals and seal matrices have been unearthed at Khuan Lukpad (Khlong Thom) in Karbi province of the Malay Peninsula under Thailand.[58] The legend on a seal matrix readable as *Rujjyo* can be dated palaeographically to *c.* first or second century A.D.[59] One of the letters on a circular seal inscription[60] can be deciphered as Brāhmī *a* of *c.* first or second century A.D.[61] The form of the next letter on the right is that of *ta* of not later than the second or third century A.D.[62] The next letter can be intelligibly read only as a variety of Kharoshṭī *ra.*[63] The following letter is Brāhmī *jha* or Kharoshṭī *ña* if read, as in the cases of the other letters, from outside. So the Kharoshṭī-Brāhmī inscription, datable to *c.* second or third century A.D., reads as (VII) *Atarāña* or *Atarajha.*[64]

Chinese sources indicate contacts between Tāmralipti (in the Tamluk area of District Midnapore) of Vaṅga and Chü-li or T'ou-chü-li (Tokola emporium mentioned by Ptolemy) in the third century A.D.[65] The emporium was on the western coast of the Malay peninsula, now controlled by Thailand.[66] The Yüeh-chih traders (from Vaṅga) used to bring horses to the kingdom of Ko-ying or Chia-ying, located perhaps in the littoral Malay peninsula.[67] The discovery in the west coast of the Malay peninsula of the seal inscription of *c.* second-third century A.D. referring to Artarāja may allude to the presence of the Kharoshṭī-Brāhmī using Yüeh-chih traders of Vaṅga, who had originally come there from the north-western section of the subcontinent.[68]

It appears that the immigrant traders introduced the Kharoshṭī-Brāhmī script in Fu-nan and Fu-nan dominated Thailand by the second-third century A.D. The interest of Fu-nan in the Central Asian horse exported through Vaṅga,[69] where the mixed script had been in use, probably gave impetus to its adoption in the area concerned. If the obverse device of the "horse: the so-called temple" variety of silver coins originated typologically in Thailand, where specimens have been found,[70] we have then further corroboration for the hypothesis about the introduction of the mixed script through immigrant horse-dealers.

The coin of Dvārāvatī under review proves the continuity of the use of the Kharoshṭī-Brāhmī script in addition to the Brāhmī in Thailand even in the late sixth or early seventh century A.D. The fact that the Kharoshṭī-Brāhmī was used to write the legend on a variety of coins struck officially, proves that though Brāhmī was the regular script, the mixed script was also important enough to receive official recognition.[71]

For the first time the mixed script is found to have been used for writing coin legends. The evidence of the coin concerned demonstrates the use of the script concerned in South-east Asia even during the late sixth or early seventh century A.D., if not in a still later period.[72] Thus the new discovery adds a fresh impetus to Kharoshṭī studies. The horizon of Eastern Kharoshṭī is indeed expanding.[73]

Notes and references

1. G. Coedes, *The Indianised States of South-East Asia* (Honolulu, 1964), p. 77; R.C. Majumdar, *Hindu Colonies in the Far East* (Calcutta, 1943), p. 197; N. Tarling (editor), *The Cambridge History of South-East Asia*, Vol. I (Cambridge, 1992), pp. 192-196 and 294.
2. G. Coedes, *op. cit.*, p. 77.
3. R.C. Majumdar, *op. cit.*, p. 222.
4. *Ibid.*; D.G. Hall, *A History of South-East Asia* (New York, 1968), p. 143.
5. R.C. Majumdar, *op. cit.*, pp. 197-98 and 222.
6. *Ibid.*, p. 222.
7. *Ta T'ang Hsi-yü-chi*, Chuan X; T.W. Watters, *On Yuan Chwang's Travels in India*, Vol. II (London, 1905), pp. 187-89; Li Yung-hsi (translator), *The Life of Hsüan-Tsang* (Peking, 1959), p. 128; P.C. Bagchi (translator), *She-kia-Fang-che* (Santiniketan), pp. 105-106.
8. T.W. Watters, *op. cit.*, pp. 188-189. Some scholars believe that She-po-po-ti, mentioned by I-ching, can be identified with Dvārāvatī.
9. R.C. Majumdar, *op. cit.*, p. 222.
10. *The Silpakorn Journal*, Bangkok, Vol. 34, no. 2, 1991, pp. 1f. and 68f.; R.C. Majumdar, *op. cit.*, p. 197; *Treasures From the National Museum* (Bangkok, 1987), pp. 14-19.
11. *Treasures From the National Museum*, Bangkok, pp. 14-15.
12. *Ibid.*, pp. 14 and 19.
13. *Ibid.*
14. *Ibid.*, p. 15; Reginald Le May, *A Concise History of the Buddhist Art in Siam* (London, 1962), pp. 21-33.
15. See above, n. 8.
16. The power of Fu-nan faded away shortly after 540. The Mon state of Dvārāvatī was founded shortly after the collapse of the Fu-nan empire; J.F. Cady, *South-East Asia—Its Historical Development* (New York, 1976), p. 54.
17. *The Journal of the Numismatic Society of India*, Vol. XXXIV, pp. 47f.
18. *Ibid.*; M. Mitchiner, *Oriental Coins and their values—The Ancient and Classical World, 600 B.C.—A.D. 650* (London, 1978), pp. 651f.; M. Robinson and L.A. Shaw, *The Coins and Banknotes of Burma* (London, 1980), pp. 9f.; *The Silpakorn Journal*, Vol. 34, 1991, pp. 58f.
19. See above, n. 18.
20. *Ibid.*
21. M. Robinson and L.A. Shaw, *op. cit.*, p. 18, nos. 3.17-3.20.
22. A. L. Srivastava, *Śrīvatsa* (Allahabad, 1983), pp. 1f.
23. See above, no. 18.
24. S. Sharma, *Early Indian Symbols—Numismatic Evidence* (Delhi, 1990), p. 90.
25. J. F. Cady, *op. cit.*, pp. 27f. and 33f.
26. *Ibid.*
27. *The Silpakorn Journal*, Vol. 34, no. 2, 1991, pp. 66-67. The "sun symbol: the so-called temple" pieces, also found in lower Thailand (*ibid.*, pp. 70-71), are generally considered as imports from Fu-nan (M. Mitchiner, *op cit.*, p. 657).
28. *The Journal of the Numismatic Society of India*, Vol. XXXIV, p. 51.
29. M. Mitchiner, *op. cit.*, p. 655.
30. *The Silpakorn Journal*, Vol. 34, no. 2, 1991, p. 66.
31. *Ibid.*, pp. 70-71; M. Mitchiner, *op. cit.*, p. 650; *Inscriptions in Thailand* (in Thai language), Vol. I, Bangkok, 2529 B.E., pp. 126-127. The Dvārāvatī coins are generally considered to have "a 1:4 denominational structure" (R.S. Wicks, *Money, Markets and Trade in Early South-East Asia*, New York, 1992, p. 306).

32. M. Mitchiner, *op. cit.*, p. 650.
33. *The Silpakorn Journal*, Vol. 34, no. 2, 1991, pp. 64-65.
34. *Ibid.*, pp. 64 and 73. A variety of the "conch: the so-called temple" type coins bears a legend datable to *c.* sixth century A.D. (*Inscriptions of Thailand*, Vol. I, p. 113). The legend can be read as *Dhara'uphā*. If the variety belongs to the Dvārāvatī kingdom it could be one of its earliest series of specie.
35. A.H. Dani, *Indian Palaeography* (Oxford, 1963), Pls. XVIII a, XVIII b, XXII a, and XXII b.
36. *Ibid.*, Pls. XVIII a and XXII a.
37. *The Silpakorn Journal*, Vol. 34, no. 2, 1991, p. 51.
38. A.H. Dani, *op. cit.*, Pl. XVIII b; sec. 6. This form is noticeable in several south Indian records of *c.* fifth to seventh century (*ibid.*, Pl. XVII b, secs. 5, 7, 8 etc.).
39. *Ibid.*, Pl. XXII b, secs. 8, 10 and 11.
40. *Ibid.*, Pl. XXIII b, sec. 12.
41. *Ibid.*, Pl. XXIII a, sec. 12.
42. For a nearly similar form of Kharoshṭī *ra*, see B.N. Mukherjee, *Kharoshṭī and Kharoshṭī-Brāhmī Inscriptions in West Bengal (India)* (published as the *Indian Museum Bulletin*, Vol. XXV), (Calcutta, 1990), (cited below as *KKBI*), Pl. III, col. II.
43. For a similar example of placing the medial sign to the left of the letter, see S. Konow, *Corpus Inscriptionum Indicarum*, Vol. II, pt. I, *Kharoshṭhī Inscriptions with the Exception of those of Aśoka* (Calcutta, 1929), Pl. XXXII, line no. 6.
44. A.H. Dani, *op. cit.*, Pls. XVI a and b; XVII a and b, etc.
45. S. Konow, *op. cit.*, Pl. XXXIII, line 4.
46. J.F. Cady, *op. cit.*, pp. 54-56.
47. Cha-ame Kaewglai, 'Inscription on a Dvaravati Silver coin: Recent Evidence' (in the Thai language), *The Silpakorn Journal*, Vol. 34, no. 2, 1991, pp. 51f.
48. *KKBI*, pp. 10f. and 65f.
49. *Ibid.*, pp. 16f.
50. *Ibid.*, pp. 12f.
51. *Ibid.*, pp. 17-18.
52. *Ibid.*
53. B.N. Mukherjee, 'A Kharoshṭī-Brāhmī Seal-Matrix from Oc-Eo (S.E. Asia)', *Monthly Bulletin, The Asiatic Society*, June, 1990, pp. 1f.; *Journal of the Asiatic Society*, 1990, pp. 99-102.
54. *Journal of the Asiatic Society*, 1991, pp. 85-86.
55. *Encyclopaedia of Southern Culture* (in the Thai language), Songkhla, 2529 B.E. (1986), Vol. VIII, p. 3227.
56. A.H. Dani, *op. cit.*, Pls. VI a and IX a.
57. *Ibid.*, Pl. XXIII b, sec. 7f.
58. *Encyclopaedia of Southern Culture*, Vol. III, 1986, pp. 1201f.
59. *Ibid.*, pp. 1202 and 1206.
60. *Ibid.*, p. 1202.
61. A.H. Dani, *op. cit.*, Pl. IX a, secs. 2, 4, 5 and 6.
62. *Ibid.*, Pl. IX a, sec. 10.
63. *Ibid.*, Pl. XXXIII, secs. 8-11.
64. The legend *Atarajha* (Artarāja) or *Atarañа* (i.e. "of Artarāja") may refer to a personal name or may allude to a king called *Arta*. In Old Persian the term *arta* (Sanskrit *ṛita*) means "law", "justice", etc.

    Some carnelian Brāhmī inscriptions from Khuan Lukpad are written in a style reminding us of that of the Nagarjunakonda inscriptions of *c.* third century A.D. Two coins found in this South-east Asian locality bear a bull on one side and a ship on the other, as we have on a variety of the Pallava coins

(*Encyclopaedia of Southern Culture*, Vol. III, 1986, p. 106; H.P. Ray, 'Early Trade in the Bay of Bengal', *The Indian Historical Review*, Vol. XIV, nos. 1-2, p. 87).

The simultaneous contacts of the Malay peninsula with Vaṅga and the eastern side of the Indian peninsula in the early centuries of the Christian era is remarkably confirmed by the stone inscription of Budhagupta found in the Wellesley province of the Malay peninsula. While Budhagupta hailed from Raktamṛittikā, identifiable with the area of Rangamati and Chiruti in District Murshidabad, the inscription itself is written in the southern variety of Brāhmī of *c.* fifth century A.D. The Malay peninsula and Thailand seem to have been more closely connected with Vaṅga than the eastern side of the peninsula up to *c.* fifth-sixth century A.D. The situation was gradually reversed in the later centuries.

65. *KKBI*, pp. 17-18. See p. 21, nn. 33, 34, 36 and 37 for references to the sources.
66. *Ibid.*
67. *Ibid.*, p. 18 and p. 21, nn. 42 and 43.
68. *Ibid.*, pp. 16f.
69. *Ibid.*, pp. 17-18 and 34.
70. *The Silpakorn Journal*, Vol. 34, no. 1-2, 1991, p. 66.
71. Stamped potsherds bearing *inter alia* the figure of horse-riders have been unearthed in the Lopburi area and its neighbourhood. These are dated to *c.* seventh to mid-ninth century A.D. (*The Silpakorn Journal*, Vol. 31, 4, pp. 83-84). These betray the popular use of horses in *c.* seventh-ninth century. But in this period horses were probably imported ultimately from West Asiatic sources (*KKBI*, p. 18 and p. 22, no. 56).

    In this connection we may draw attention to certain figures found at Ku Bua, in Thailand (Pl. 34.8), dated to *c.* eight to tenth century A.D., and at Sambor Prei Kuk, Cambodia (Pl. 34.9), attributed to *c.* seventh century A.D. (*Archives of Chinese Art Society of America*, no. 19, 1965, p. 56; L. Frédéric, *The Temples and Sculptures of South-East Asia* (London, 1965), p. 251 and Fig. 275; *The Journal of the Siam Society*, Vol. 77, no. 2, p. 15). We do not know whether the clay terracotta figures wearing boots, peaked caps, close-fitting trousers and upper garments with full sleeves represent West Asian traders or the descendants of the Kharoshṭī-Brāhmī using merchants.
72. The silver coins of Dvārāvatī bearing the Brāhmī inscription *Śrī-Dvārāvatīśvara-puṇya* are generally dated to the period from the sixth to the eleventh century A.D. (*The Silpakorn Journal*, Vol. 34, no. 2, 1991, pp. 64-65 and 72). But palaeographically these should be assigned to the sixth-seventh or seventh-eighth century A.D. and not to any later age. However, after eighth century the old coins could remain in circulation or new coins could be struck imitating all features of the earlier legend.
73. For a discussion on Eastern Kharoshṭī, see *KKBI*, pp. 10f.

35

Mahasthan—the earliest urban centre in Bangladesh

Afroz Akmam

Mahasthan or Mahasthangarh, about 13 km. north of the headquarters of District Bogra, is today a humble village. It has a number of scattered mounds spreading over a wide area along the river Karatoya. The site (Pl. 35.1) of Mahasthangarh seems to hold in its womb the remains of an ancient town which was fairly extensive in area and well-fortified all around (Pl. 35.2). The remains of the rampart are still clear (5000′ × 4000′).

The ruins of the *garh* were first described by Buchanan Hamilton[1] and later on by Beveridge, Cunningham and others;[2] according to them the site was studded with isolated mounds. The entire area was well protected from the very beginning: on the east by the river Karatoya, and on the other three sides by a moat, the remains of which are known today as the Baranasi *khāl* (south), the Gilatala *khāl* (west), Kalindaha *sāgar* (north).[3] From the archaeological evidence it is clear that the city spilled over the fortified area and drew the adjacent, presumably semi-urbanised, centres within its economic and cultural orbit. Within the perimeter of the citadel, isolated mounds, intervened by low grounds, are found, each bearing local names, such as Khodār Pāthar mound (Dhāp), Mānkālir Kuṇḍa, Munir Ghon, Narasiṁgher Dhāp, Paraśurāmer Bāḍī and Jiyat Kuṇḍa.[4]

The earliest excavation in the Mahasthan region goes back to as early as 1929, when the site was first excavated by the Archaeological Survey of India under the guidance of K.N. Dikshit.[5] The activity was confined to three highest mounds of this area. The archaeological remains laid bare by him were scanty and provided very little evidence of the site, except a broad outline of the cultural sequence. The city was possibly founded by the Mauryas, as attested by a fragmentary inscription mentioning *puḍanagala* (Puṇḍranagara) identified with Mahasthan, the find-spot of the inscription (Pl. 35.3),[6] and was continuously in existence for a long time. The site was partially excavated (Pl. 35.2) again by the then Department of Archaeology of Pakisthan in 1960 and 1961 which exposed at least three main non-descript building periods.[7] Successive occupation at this place was found so intensive, that no building remains here offered a coherent complete plan. The spade that had cut through the virgin soil had reached at a depth of 25 feet from the surface. Recently a joint venture of Bangladesh and French team is involved in re-excavating the site. The team has worked for two successive seasons—1993 and 1994.

The final report is awaited, but what one gathers from the verbal communication, it seems that the chronological sequence remains more or less the same.[8] Dug down to a depth of 25 ft. below surface on average, the site revealed the following periods.[9]

Period I, representing the Maurya cultural phase, is characterized by the so-called Northern Black Polished Ware (N.B.P.W.), punch-marked and cast copper coins, a large number of beads and terracotta females and animal figurines with punched design. Other notable finds from this period are beautiful buttons, ear-drops, rings, bangles, pendants and nose-studs of various materials, ranging from terracotta to stones and copper. Copper antimony-rods have been found in good numbers. The uncovering of thick deposit of the Maurya level along with the remains of mud-built houses reveals that the place during this period was crowded with thickly-set houses. There is no doubt that the city witnessed a well-settled life in the third-second century B.C. Recently-traced mud wall around the city of Puṇḍranagara has been accredited to the fortification-wall, belonging to this phase. A few pieces of the N.B.P.W. have been found at the working level of the fortification-wall. That the ancient city of Puṇḍranagara was a fortified town is well-attested by the evidence of the fortified wall and the moat. A few ring-wells have been found at the Maurya occupational level.

Period II of Mahasthangarh stratigraphically belongs to the Śuṅga-Kushāṇa (?) phase; apart from revealing remains of houses of wattle and daub walls, roof tiles and a rich yield of terracotta art-objects of the second-first century B.C., it has laid bare within the fortified area a remarkable well-preserved brick-paved floor. A hearth and some post-holes at the centre have been found in the stratified level of this phase. In one trench, the lowest stratum was found to be associated with a thick accumulation of ash and charcoal, below which was noticed one wooden plank burnt and decayed. The period is represented by the black polished pottery, grey ware and red ware. A few pieces of black and red wares were found decorated with flower-motif. The period is characterized by a large number of copper cast coins and terracotta art-objects (Pls. 35.4 and 5).

Period III represents the Kushāṇa-Gupta phase, exposing thick deposit of Kushāṇa pottery (Pl. 35.6), terracotta figurines with definite stylistic affiliation of the contemporary idiom. Noteworthy pottery specimens of this phase are handled cooking vessels with incised design, bowls, basins, sprinklers and lids. A number of cast copper and silver coins and a gold coin of a Kushāṇa king have been found. The period shows prolific structural activities in brick. The rampart-wall during this phase seems to have been rebuilt in brick (Pl. 35.7). The evidence of secular architecture is rather scanty. However, the data are sufficient to indicate that large-scale building construction was done during this period. But no noteworthy masonry structure was built here before the time of the Guptas. The occurrence of beads of semiprecious stones, shell bangles, cast copper coins and diagnostic terracotta figurines betrays favourite urban taste.

All these, no doubt, imply that the city witnessed an organized social structure with a sufficiently-strong base to support it.

Period IV representing the so-called Gupta and late Gupta periods is datable to about the fifth to the seventh centuries A.D. The city's connection with fortification-wall is very clear. Nazimuddin's 'second building period' belonging to this phase, termed as Gupta and late Gupta,[10] is characterized by the remains of thickly-set structures in bricks, strengthened by iron nails and big iron hooks. Datable to about the fifth to the seventh centuries A.D., the period has yielded rich antiquities, including varieties of terracotta plaques of the characteristic style (Pl. 35.8), seals, sealings, beads of various materials including semiprecious stones (Pl. 35.9), copper objects, beautifully-modelled bricks and the stamped potsherds, diagnostic of the time. Another important object of this period found in the stratified level is a terracotta head adorned with a crown, indicating the royal association.[11] But the most important discovery of this period (found at Govinda Bhiṭā) is the remains of a massive structure of bricks, supposed to be of a temple, belonging to the late Gupta period.[12]

The Pāla phase of Mahasthangarh region, though stratigraphically not precisely labelled by the excavators, has been the most flourishing phase at this place. According to Nazimuddin Ahmed this period (along with post-Gupta materials) is well-represented at several sites like Khodār Pāthar, Mānkālir Kuṇḍa, Paraśurāmer Bāḍī and Bairāgīr Bhiṭā, all split-up mounds lying scattered over the main site of Mahasthangarh.[13] Interestingly, all these sites are spread in the eastern side of the mound. Discovery[14] of the ruins of a large number of big and small structures of religious and secular character from different sites of Mahasthangarh show how during the early and the late Pāla period large-scale building activities took place in the entire region. A few pieces of beautiful ornamental pillars, some of which are decorated with designs like half-lotus medallions and floral scrolls and a door-frame were found from the stratified level. One such pillar of the Pāla period of the place had been utilised at the nearby site, Bairāgīr Bhiṭā, to form a drain in a later structure. Characteristic of this period is the boldly-designed row of *kīrti-mukhas* emitting garlands of jewels. A fairly large collection of antiquities, pottery of distinctive character, terracotta plaques, ornamental bricks, stone objects, beads of precious and semiprecious stones and iron, bronze and copper objects have been unearthed from the Pāla level at several sites scattered in Mahasthangarh area.[15]

We are now in a position to make an overview of the assembled materials found from the main site of Mahasthangarh. In terms of antiquities and structural remains there cannot be any doubt that the place from the so-called Maurya period to the post-Gupta-Pāla phase (the place was in occupation till the Muslim period) was a flourishing centre, reaching its height of glory during the Gupta, post-Gupta and Pāla periods. The archaeological evidence of the internal layout of this city-centre is admittedly very much inadequate, but the physical magnitude of the place is significant. As a matter of fact the structural remains lying scattered in Mahasthangarh and in the adjoining area confirmed that attached to the core of the city, a rich countryside developed and both were intimately interacting parts. This is so clearly evidenced in the ruins of Mahasthangarh and the adjoining area. As regards the settlement location of the ancient city of Puṇḍranagara, the archaeological evidence categorically provides a distinct picture—that the city in its ancient time was divided into two parts; the first one was Mahasthangarh, the main city centre, and the second stood for the greater or the outer Mahasthangarh zone. The outer Mahasthangarh comprised a large number of sites scattered all around. Important sites yielding significant materials are Bairāgīr Bhiṭā, Govinda Bhiṭā, Skander Dhāp, Mangalkot, Kichak, Lakshindarer Meḍh etc. It is in this second or the peripheral part we propose to concentrate now.

The archaeological materials collected from this outer area provide an interesting evidence. It is noted that while the appearance of the N.B.P.W. is very casual in this region, a rapid development of history is evidenced from the Kushāṇa period onwards. A look into the archaeological assemblage of the following sites would be helpful to appreciate the historical situation of the Mahasthangarh and its adjoining part.

Bairāgīr Bhiṭā or Dhāp[16] (30′ × 250′ × 10′), located near the northern rampart wall of the ancient city of Puṇḍranagara (Mahasthangarh), reveals the materials which are similar to the objects found in the core centre of Mahasthangarh. The flourishing stage of this site coincides with the Gupta period, when a group of brick temples were built. The temples remained in occupation during the post-Gupta-Pāla period. A large number of bricks of the Gupta period along with bricks of the later period are found freely in use. Excavation at this place has yielded the remains of structures belonging to different periods, one overlying the other. According to Nazimuddin,[17] the structural remains of this place represent four major building periods, commencing from the Gupta period onwards. The system of using courtyard is found in both religious and secular structures. On one of the courtyards, arrangements for fixing the hinges of door-leaves are clearly seen in the semicircular notches in the wall on either side of a doorway. Regarding the settlement character of this place it is clear that though the site shows the beginning of history in the first-second centuries A.D. (a large number of Kushāṇa potsherds have been found), it had reached its peak in the Gupta, post-Gupta and in the Pāla periods.

Abutting the river Karatoya, Govinda Bhiṭā,[18] is located outside the citadel walls of Mahasthan. The site, supposed to be a part of the ancient town of Mahasthangarh, was subjected to excavations for two seasons. The diggings revealed successive occupational levels showing massive structural remains of the Gupta and post-Gupta periods. The place seems to have reached the most flourising stage during the Gupta time. Nazimuddin[19] is of the opinion that the curious cellular style of construction was a remarkable development in building architecture during this time. In fact, most of the structures show rows of cells in the foundation. Among the antiquities found from this site, a terracotta medallion representing a male and a female (Pl. 35.10), a head with strong Gupta affiliation and a flat circular clay sealing (Pl. 35.11) bearing three stalks of a wheat-plant placed together within a railing and enclosed by an inscription written in Gupta Brāhmī character are important.

The next important site in the area is Lakshindarer Meḍh[20] at Gokul (about 1 mile from the Mahasthan citadel), revealing interesting remains of a structure with 172 rectangular blind cells of various dimensions. The whole bulk of this cellular construction forms the base of a *stūpa* or temple (about 6th-7th century A.D.). A number of terracotta plaques and associated art-objects of the late Gupta-Pāla period have been found in the assemblage. Over the base was an octagonal plinth (no longer extant), over which was built a shrine with a porch at a much later period. The excavation inside the shrine 'revealed a small intrusive cell containing human skeleton . . . and underlying that was found a circular brick-paved pit. . . . A stone-slab was discovered at the centre of the shrine which bore 12 shallow holes with a larger hole in the centre containing a tiny gold leaf,'[21] bearing the figure of a recumbent bull in relief. The shrine was possibly dedicated to Śiva. During the Pāla period several smaller and subsidiary structures were built up; one was a solid rectangular platform and there is a group of ring-wells within the compound wall. The functional part of this rectangular platform is not very clear, but the ring-wells obviously indicate the presence of a large number of inmates living in this complex.

Located about 4 miles west of Mahasthangarh Vasu-vihār, identified with Po-shih-p'o monastery,[22] is an important monastic complex of the post-Gupta period. On excavation, the site yielded two monasteries and a shrine. A large number of terracotta plaques that profusely decorated the outer wall of the shrine were found in the assemblage. Excavation at Narapatir Dhāp (one of the mounds in Vasu-vihar village) during 1973-74 exposed two monasteries (Pl. 35.12) with four wings and a semi-cruciform shrine with three terraced ambulatory passages all around. Among the rich antiquities registered from the stratified levels of the post-Gupta-Pāla phases 'the most interesting are 86 bronze objects, 34 terracotta plaques and a dozen inscribed clay seals,'[23] and a few stone images (Pls. 35.13, 14 and 15).

About 2 miles south-east of Mahasthangarh, Skander Dhāp,[24] a mound located on the east bank of a big pond, has yielded an interesting red stone headless image of a divine figure, perhaps of Kārttikeya (Pl. 35.16). Stylistically the image is typical of the Kushāṇa cultural phase. No stratigraphical position of this image has been found so far. Explorations undertaken in this area have, however, laid bare ceramic evidence, typical of the Kushāṇa-Gupta period.

About 1 mile west of Mahasthangarh there is a site locally known as Mangalkot.[25] A limited excavation at this site has yielded the remains of a temple of the medieval period. But the most important discovery happens to be an extraordinary hoard of terracotta figures (including heads, Pl. 35.17) consisting of a fairly good number of female figures of the so-called Kushāṇa-Gupta formal and stylistic affiliation. Some interesting terracotta figurines belonging to the Gupta and the late Gupta periods have been laid bare as chance finds, from the sites like Kichak[26] (Pl. 35.18), Palasbari[27] (Pl. 35.19) and Saralpur[28]—all located within the area of the greater Mahasthangarh region. A gilt bronze image of Mañjuśrī, ascribable to the 5th-6th century A.D., has been discovered at Saralpur. Gupta vestiges in the forms of Gupta gold coins (one of Chandra Gupta II, and the other of Kumāra Gupta I) were found in Bamanpara, a site close to Mahasthangarh. Prabhas Chandra Sen in his *Mahasthan and its Environs*[29] tentatively identified Gokul with Gopagṛiha, mentioned in an epigraph found outside the Mahasthangarh rampart.

Should these archaeological materials be accepted as the remains of history then it would stand to reason to accept the fact that from about the 3rd century B.C. Mahasthangarh and its environment give a clear idea of compact settlement. The over-all pattern of settlement in this area shows that during the third century B.C., the region witnessed a clear historical direction, to an extent even suggesting settlement hierarchy. This character emerges from a number of indications in the epigraphical record of Mahasthangarh. First, the suffix *nagara* in the name of the ancient town—Puṇḍranagara—distinguishes it from *grāma* by which a village settlement of the period was known. Secondly, whatever meagre information is available regarding the politico-economic life of this region confirms that during the 3rd century B.C. or thereabout, the ancient town Puṇḍranagara was an important political centre, administered by a *mahāmātra*, attached to the Magadhan kingdom. Economically too the city seems to have reached a stage of stability where currency was freely used. Thirdly, one may presume that the place was a nerve centre of the region where surplus grain was stored in a public granary or *koṭhāgāla* (*koshṭhāgāra*) under the control of a royal officer. The evidence of the existence of an official house in the epigraph for public use confirms one of the ten criteria of urbanisation formulated by Gordon Childe.[30] Another dimension to urban problem which seems to be very striking in connection with the emerging urban situation of Mahasthangarh is the city's involvement in, and participation with contemporary religious establishments. As a matter of fact the place was a centre of religious and cultural activity through the course of history. Religious structures were indeed the dominant monuments of urban landscape of Mahasthangarh and its adjoining area. But what is important to note in this connection is that the existence of such a huge number of religious edifices as found through archaeological materials implied congregation of a large number of people in this area who were attached to these establishments. These people needed food and shelter for their living. Unfortunately, we have not as yet sufficient archaeological data to suggest corresponding secular settlement, at least not earlier than the Gupta period.

Proceeding chronologically it is indeed most difficult to appreciate development of urbanisation in Mahasthangarh region on the basis of the objective data of archaeology. The primary hurdle that one faces in this is the paucity of evidence, not providing any clue to know about the antecedence of history in this region. Thus the process of change in the socio-institutional sphere following the farming settlement of the pre-N.B.P.W. autochthonous people, that is of the *Puṇḍra-jana*, remains totally unexplored. But one observes here a pattern. While the usual picture of settlement of the older alluvium stretch of Bengal shows the Chalcolithic black-and-red ware succeeded by Northern Black Polished Ware, Mahasthangarh located in the older alluvium belt of Varendra exposes a cultural sequence starting with the N.B.P.W. (N.B.P.W., punch-marked coins, Maurya inscription, diagnostic terracotta art)—thus linked up to a socio-institutional economic process which had its root in the Magadha region. It is, therefore, clear that the beginning of the urban growth in the Mahasthangarh region is likely to be the result of a techno-economic historical process which was operative in the heartland of the Gangetic valley. The process was active till the end of the Gupta period. As for example, Mahasthangarh Period II reveals Śuṅga-Kushāṇa level yielding materials in the forms of ceramics (grey pottery, incurved bowl, red and black polished sherds decorated with flower motif), the diagnostic terracotta figurines, the cast copper coins, the beads, all time-bound types of pan-Indian character. The architecture of this period shows mud-built houses using wood, reed, tile, the type which was common in the preceding centuries. Ring-wells remained as a necessary adjunct to dwelling houses, as it was in the earlier period. The third phase (Period III) which is equated to the Kushāṇa period witnessed a prosperity in the historical process, revealing thickly-set buildings in bricks strengthened with iron nails and iron hooks. The period yielded rich antiquities like beads made of semiprecious stones, cosmetic sticks, bone combs, copper and glass bangles, seals, sealings, terracotta figurines, stone images, including varieties of pottery to cater to the urban tastes and needs. Gupta Period (IV) shows an elaboration in the settlement pattern. The building tradition of Period III continued in this period when brick, wood and iron were lavishly used as the building materials. The remains of the city—all in ruins—give a clear idea of the density of population evidenced by crowded houses crumbling down to others, thus offering no coherent plan. The city had at this stage no other option than to spread horizontally, including a number of new sites within its orbit. The sites, like Govinda Bhiṭā, Jahaj Ghāt, Kichak, Lakshindarer Meḍh, Palasbari, Bamanpara and Saralpur, provide positive proof of archaeology establishing Gupta stratigraphy at the basal level. The period is characterized by its rich yields of antiquities,—varieties of fine grained moulded pottery, a large quantity of beads of semiprecious stones, copper objects, antimony-rods, a few pieces of stone and stucco sculptures, terracotta figures and bronze images. A few Gupta gold coins have been found both in the stratified level and on the surface. There is no doubt that the region during this period experienced not only prosperity, but also a kind of identity, the causative factor of which lay in the formation of an organized political unit under the Gupta dynastic administration. An overview of the Gupta epigraphs[31] following A.D. 433 shows very clearly how Mahasthangarh during this period was united with the Gangetic valley as a part of a unified empire. After the Guptas the region's important political masters were the Pālas, when the city of Mahasthangarh seemed to have reached its zenith. It was in fact the principal territory of the Pāla empire. Quite naturally the entire region and its epicentre Mahasthangarh witnessed during this period further development of the already-existing stability attained in the preceding century. The structures during this time were made of the materials like bricks, stone rubble and black stone. The mortar and plaster were profusely used. The floors were renewed several times. The fortification-wall which at the initial stage (3rd century B.C.) was made of mud got renovation at several stages. During the Kushāṇa-Gupta period renovation work was done with bricks. Our evidence shows that the rampart-wall was further strengthend in the late Gupta and in the Pāla periods when brick, slabs of stone, iron nails and iron hooks were used at random. In the Pāla period the city is found to have spread extensively beyond the fortification-wall. The evidence of such an extension in the habitational area no doubt suggests that the region at this phase witnessed a stupendous economic development that followed as a result of stable political situation. Numerous agricultural settlements grew up in this region, forming a strong base of economy. The index to this economic stage of life is evidenced in the appearance of a number of massive and majestic shrines connected with Buddhism and Brāhmaṇical religion. An analysis of the epigraphs provides us an insight to appreciate how the penetration of different religious groups in the Varendra region started with the Mauryas and how the process continued without any break. In the early centuries of the Christian era two Jaina sects—Koṭivarshīya and Puṇḍravardhanīya—grew up in northern Bengal.[32] During the Gupta period, Puṇḍravardhana-bhukti (of which Mahasthangarh was a key centre) had two other cities, namely Koṭivarsha and Pañchanagarī. Ruins of a large number of religious structures lie scattered not only in and around the ancient site of Mahasthangarh, but in two other city complexes as well. A closer observation of these structures would show traces of having been rebuilt, renovated and enlarged at several times. Such structural phases would confirm that there was a continuity of these religious edifices from the Gupta to the late Pāla periods. During the time of the Pālas the building of temples or installation of icons was considered as the highest act of merit. Such emphasis on religious pursuits through erection of temples and making of icons could not have been possible without the support of the royalty and the rich people. Archaeologically speaking, during this period many stately buildings, secular and religious in nature, were built up at several places in the Varendra region, of whose magnificence no idea can now be had; but these undoubtedly constitute the most vital evidence of the phenomenal prosperity of this region that took place during the course of history. Some observations about art-activity may be useful in this context. While it is observed that art of Bengal till the Gupta period was rendered in a style corresponding perfectly with the art of its core territory—that is the middle Ganga plain—, in the Pāla period, we see evidence of renewed activity in art, emphasizing its regionality. This is most explicit not only in the sculptural art, but, more significantly, in the temple architectural style characterized by cruciform ground-plan and pyramidal roof. The monuments are uniquely regional and vital, so much so that the type exerted enormous influence, extending far into Burma and South-east Asia. If we may judge that art grows up into a commercial and religious *entrepôt*, (two most distinguishing characters of urbanisation), then the enormous art-activity that characterizes Mahasthangarh during the Gupta, late Gupta and the Pāla phases suggests a new ideational base regulating the urban life and culture of the region. The distinct aesthetic norms shown in stylistic homogeneity which happens to have been the hallmark of both architectural and sculptural art of Pāla Bengal were undoubtedly the products of the skilled artists and craftsmen who were trained in an atelier supervised by master artists like Dhīmān and Bitpalo.[33] Such condition persists only in urban setting.

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Buddhism and trade in early historical India

Himanshu Prabha Ray

This paper deals with the role of Buddhism in the expansion of trading networks in the Indian subcontinent from the latter half of the first millennium B.C., i.e. *c.* 400 B.C. to A.D. 300. The subject is of interest for two reasons: one is more general and relates to the notion of trading networks and traders as agents of social change. This is particularly relevant to the spread of early Indian influence to South-east Asia and I would argue against the proposition put forward by van Leur (1955) that the vast majority of traders from India were pedlars and the most unlikely media for the spread of cultural influences.

The second issue relates to the emphasis on the so-called Roman trade in studies on the early historical period. There is little doubt that the post-Maurya period was characterized by a spatial expansion of urban settlements from the nucleus in the middle Ganga valley to regions which had hitherto been on the periphery, such as peninsular India (Ray 1987: pp. 94-104). The problem is: was this prosperity a result of Roman trade with the subcontinent under Augustus and Tiberius as argued by several scholars or was it the result of internal dynamics? I would take the position that the prosperity was the culmination of events that unfolded themselves in the middle Ganga valley in the pre-Maurya and Maurya periods, and one of the contributing factors in this was the support provided by Buddhism.

The second issue shall be taken up for discussion first and the inter-relationship between Buddhism and trade in the early historical period outlined. It is only then that its expansion into South-east Asia shall be analysed. The model that trade *per se* can lead to social change should perhaps be qualified with the refinement that trading networks can only act as agents for opening up channels of communication, whereas social change results from shifts in ideological affiliation.

A related issue is the question of identity of long-distance trade networks in pre-industrial economies. These networks required resolution of the infrastructural problems of storage, credit, payment and transportation for their success. More important was a regular flow of information regarding supply and demand; adjudication of commercial disputes; and creation of mutual bonds of trust. These problems could be best overcome by the formation of a 'trading diaspora' which created a corporate identity and cultural unity among its members (Cohen 1971: pp. 266-70). The criteria chosen for the definition of this distinctiveness depended on a variety of factors, but a common religion has generally been recognised as a potent binding force (*ibid.*). Another issue that has come in for scrutiny is the alien element of these diasporas which takes for granted that these merchant communities continued to maintain their distinctive identity in the regions where they settled with little or no integration with the local cultures. As a result they were marginalised socially and politically and there was a disjunction between trade and elite politics (Chaudhuri 1985). As against this it has been argued that the alien element of trading diasporas was not a universal feature and in many cases the merchant communities appear to be rooted in the broader framework of society and to have become associated with revenue collection and court politics (Subrahmanyam 1986: pp. 31 and 538; Wink 1990: *ch.* III).

But before the role of the Buddhist trading groups among early South-east Asian communities can be spelt out the question that needs to be answered is: what led to the appeal of Buddhism amongst the trading groups and what was its relationship with contemporary religious sects in the Indian subcontinent?

The dissimilarity between Buddhist and Brāhmaṇical ethos lay in their varied trajectories of evolution. While Brāhmaṇical norms evolved at a time of agrarian expansion in the Ganga valley, Buddhism developed in a milieu of growing trade networks and the emergence of a complex economic system in northern India. A study of the social composition of the early *saṅgha* shows that from a sample of over 300 monks and nuns as indicated in their biographies, more than two-thirds came from large towns. As for their *varṇa* or caste affiliations, about 40% of these were *brāhmaṇas*, 22% *kshatriyas*, 29% *gahapatis* or *vaiśyas* and only 1% *śūdras*. Thus nearly half of the early members of the *saṅgha* came from powerful and wealthy families (Gokhale 1965: pp. 391-402).

As a result early Pāli texts reveal the use of two different schemes of social stratification. On the one hand the existing Brāhmaṇical division of society into a four-fold *varṇa* hierarchy was accepted. On the other, early Buddhist literature emphasized the occupational divisions among the people and the distinction between the higher and lower occupations. Listed among the higher occupations were agriculture, trade and cattle-keeping (Chakravarti 1987: p. 102). That these categories were not merely theoretical adjuncts is clear from a study of the inscriptional evidence from Buddhist monastic sites which record donations by a cross-section of the populace who mention only their occupations (Ray 1989: pp. 437-57).

In contrast to the Buddhist perception of occupational groups is their position in Brāhmaṇical literature. The expansion of the economy meant a proliferation in the number of occupational groups and the need to absorb them in the four-fold *varṇa* framework. One recourse adopted for the incorporation and assimilation of these groups was the theory of miscegenation or *varṇa-saṅkara*, i.e. their origin out of the mixture of the four *varṇas*. The comparative position of these groups, however, constantly oscillated depending on their economic power (Mukherjee 1988). But perhaps one category of donors that is intriguing is that of monks and nuns. Donations by Buddhist monks and nuns are particularly conspicuous at Mathura, Sanchi, Bharhut and monastic cave-sites of both the eastern and the western Deccan. These gifts by the clergy are in marked contrast to those of the Jainas where only an indirect reference is made to the monks, i.e. as revered teachers at whose behest donations have been made (Lüders 1912: no. 34). Nor can there be any comparison in scale between the natural caverns of District Madurai, where stone beds were gifted to Jaina monks, and the elaborate rock-cut carvings of the Deccan. How then are these donations of money, land and images by the Buddhist clergy to be explained? The *Vinaya* rules clearly do not allow the use of gold and silver by Buddhist monks and nuns.

These references taken together with the fact that a majority of the Buddhist monastic establishments were located along the main trade-routes led Kosambi to suggest that monasteries may have supplied essential provisions to trade-caravans at a profit and also provided much needed capital at an interest (1955: pp. 60-1). This direct intervention of monastic establishments in economic activities has not found general acceptance. It has been argued by Heitzmann, for example, that 'the location of the Buddhist monastic sites at a distance from the arenas of economic and political activity made their direct participation in such activity inefficient' (1984: p. 132).

In spite of the spatial isolation of the Buddhist monastic establishments there is little doubt that by the early centuries of the Christian era, the *saṅgha* was a major holder of land and property, but this still leaves the question open about the affiliation of the merchant and trading groups. One indicator of their Buddhist identity is the donatory inscriptions from the major monastic sites. The other is the archaeological data. The archaeological evidences particularly relevant to this study are the seals, sealings, and inscribed pottery, as the connection of these with trading activities is obvious. Of the two rock-crystal intaglios from the north-western part of India, one, now in the Berlin Museum, depicts a seated monk and a legend, in Kharoshṭhī of the Kushāṇa period, indicating that the seal (*mudrā*) belonged to the *saṅgha* (Schlingloff 1969: pp. 69-70). A sealing comes from Kumrahar near Patna and is dated between A.D. 100 and 300. In the upper half it shows the plan of a building, while the legend in the lower half reads *saghasa* or 'of the *saṅgha*'. This symbol of a building-plan presumably representing a *vihāra* is again repeated on pottery and has been found at several sites such as Kasrawad (Diskalkar 1959: p. 9), Salihundam, Nasik and Nagarjunakonda.

Sherds inscribed with Kharoshṭhī and Brāhmī legends are a consistent feature at the early historical sites in the Indian subcontinent. The distribution of these is extensive, stretching from Mohenjo-daro, Kara Tepe and Tor Dherai in the north-west to Chandraketugarh and Tamluk in the lower Ganga valley and *via* sites in central India to Arikamedu, Vasavasamudram and Korkai on the Tamil coast (Ray 1987a: pp. 1-14). The ceramics on which the inscriptions are found are varied and include both coarse and fine wares. In a majority of cases the inscriptions contain names of owners, but owing to the fragmentary nature of the sherds it is often not possible to reconstruct the shapes of the pots. The evidence from Shaikhan Dheri and Kasrawad suggests that two of the commodities that may have been transported in pots were wine and oil (*ibid.*, p. 3), both major commodities of trade.

In addition to the names inscribed on pots are the expressions or formulae known from early epigraphs from Buddhist monastic sites, for example *dāna-mukhe* or 'principal gift of', *aroga-dakshinae* or 'for the bestowal of health upon' and *saṅghe chatudiśe* or 'of the *saṅgha* of the four quarters'. These Buddhist formulae on vessels and the large number of sherds bearing auspicious symbols, such as the *triratna*, *śrīvatsa* and *svastika*, indicate the extensiveness of the trading network accepting the Buddhist symbolism.

The excavations at Sonkh indicate that the use of symbols on ceramics dates to the post-Maurya/pre-Gupta period at the site. In the second-first centuries B.C. these were either incised on the shoulder of pots or applied, though in the later Kushāṇa period these were generally stamped (Härtel 1989: p. 187; Achilles-Brettschneider 1980: p. 129). Early historical sites yielding sherds with the *triratna*, *śrīvatsa* and *svastika* symbols include those of Kasrawad, Bhokardan, Kaundinyapura, Salihundam, Nasik, Prakash, Ter, Ahichchhatra, Rairh and so on. Some of these symbols also occur on tribal coins but are not used from the Gupta period onwards, i.e. from the fourth century A.D. onwards.

Certain questions arise out of the discussion so far: Buddhism shared the concept of renunciation with other contemporary religions—Jainism and Brāhmaṇism. What then was the reason that it gained ascendancy in the early historical period? Both Buddhism and Jainism had a more liberal attitude towards trading activities and traders than Brāhmaṇism, and yet we know that the influence of Buddhism was far more extensive than Jainism, which was limited to certain pockets. To what extent can we speak of a Buddhist identity? Related to this is the issue of the machanics of maritime trade and the channels through which Buddhism spread into South-east Asia.

But first, what was unique about Buddhism? It was the only religion among its contemporaries organised into a *saṅgha* or monastic institution. Among all the bodies of renouncers it was only the Buddhists who conceived monastic life; or perhaps monastic life grew out of the concept of the rain-retreat, the practice of remaining in retreat by ascetics during the rainy season, which was fairly prevalent but which only the Buddhists formalized. 'The Jaina and Brahmanical wanderers had no regulations prescribing living together during the rain-retreat. In Brahmanical texts it is living at one place (*ekatra*) or at a fixed residence (*dhruvasila*) that is contemplated. In the Jaina rules no specially made lodgings (like the *āvāsa* of the Buddhists) are allowed and only the teacher (*ācāryopādhyāya*) and his group of pupils (*ganavacchedaka*) can lawfully live together. But the Buddhist *vassa* became an occasion for the *bhikkhus* to live together in congregation' (Dutt 1962: pp. 53-4).

Though originally the *āvāsas* and *ārāmas* were nominally for three months' sojourn, they gradually became places of permanent residence. What united the monastic order and the lay society in the early period of Buddhism was the celebration called the *uposatha* held at the time of the new moon and the full moon. On these occasions, the monks recited the rules of conduct, while the laity affirmed their vows through the eight precepts. This also brought the monasteries into closer contact with the lay community, and it was this interaction that provided distinctiveness to the Buddhist *saṅgha*, both as a pioneer in agrarian expansion as well as in providing identity and cohesiveness to trading groups.

Early Buddhist literature provides interesting vignettes of the process of interaction between the lay devotees and the *saṅgha* and the changes resulting from this. First is the change in the list of items that were to be given as *dāna* or gifts to the Buddhist monks. The earliest lists included only four categories of objects: robe; food given as alms; place for rest; and medicine (*Dīgha-nikāya*, I.61; *Majjhima-nikāya*, II.62; *Vinaya Piṭaka*, III.89). By the time of the *Chullaniddesa* (523), i.e. third century B.C., however, the list had already expanded to include fourteen items, some of the additions being clothing, vehicles, garland, perfume, paste, dwellings and material for lighting lamps.

What is interesting is the inclusion of items like oil for lamps, perfume and garlands in the list. All these were major items of trade in the early historical period, and oil-millers, perfumers and garland-makers figure frequently among the list of donors at Buddhist monastic sites.

Another concept that underwent a change was the concept of recompense. The early Pāli canon had few tangible benefits to offer to the layman in return for gifts in kind. The only feasible reason for large donations to the *saṅgha* was enhancement of social status. It is in the non-canonical texts that the idea of gift-giving is first attributed rewards like deliverance from the cycle of rebirth, old age and death (*Milindapañha*, 41 dilemma). These undergo further changes in the Mahāsāṅghika doctrine and in return for the construction and decoration of *stūpas*, lay devotees were now promised wealth and even a stature at par with the gods (*Mahāvastu* II:363-97).

Perhaps the single crucial contribution of the Buddhist monastic establishments to the physical well-being of the lay devotees was their role as repositories of knowledge: knowledge of writing; and the development of an indigenous system of medicine. The Vedic system of healing was essentially magico-religious and the healer possessed only a superficial understanding of human anatomy (Zysk 1991: p. 16). Physicians and medicine were denigrated by the priestly hierarchy and *brāhmaṇas* were prohibited from practising the art of healing (*Taittīriya Saṁhitā*, 6.4.9. 1-3). There was a shift from this magico-religious system to empirico-rational medicine in ancient India as laid down in the *Saṁhitās* of Charaka and Suśrūta of the early centuries of the Christian era. This empirico-rational system to a great extent incorporated and adapted the knowledge of medicine as developed in the Buddhist Order (Zysk 1991). Roots, leaves, gums and resins played an important part in the Buddhist materia medica and this knowledge of plants would have been crucial in the early historical period when spices, aromatics and woods formed a bulk of the commodities involved in trade.

Learning in the Buddhist monasteries was first conceived as a grounding in canonical lore, though gradually its scope was liberalised. There are references in the Pāli canon to writing and the composition of letters (Dutt 1962: p. 236), though its use seems to have been limited. According to the Chronicles, the transition from oral texts to written manuscripts took place in Sri Lanka in the reign of Vaṭṭagāmani dated between 43 B.C. and 17 B.C. In the Indian context, inscriptions on the Buddhist monuments appear from the second century B.C. onwards. While at Bharhut they are explanatory and simply indicate the legend depicted in the medallions, at Sanchi and at other Buddhist sites, they record donations made by the lay devotees.

A legend in the *Divyāvadāna* (532) mentions women reading the *Buddhavachana* by the light of a lamp and taking notes on birch-bark with pen and ink. Sculptural representations from the beginning of the Christian era are far more illuminating. A relief in the Gandhāran style shows the young Siddhārtha being initiated into the art of writing. Another relief from Nagarjunakonda in the Site museum shows a scribe making a record with a stylus on a palm-leaf or thin piece of wood while priests interpret Siddhārtha's horoscope to the king (Dutt 1962: p. 236).

An area in which the Buddhist approach, unlike that of its contemporary religions, is regarding sea voyages. Brāhmaṇical texts like the *Dharmasūtra* forbade travel by sea, while the *Manusmṛiti* (III.158) takes a less rigid stand. It is, however, in Buddhism that the notion of a protector who could be called upon in distress either by seafarers or by merchants travelling in caravans, developed into the concept of a Bodhisattva. Though the cult of the Bodhisattva Avalokiteśvara is often traced to the *Saddharmapuṇḍarīka-sūtra* (ch. XXIV), the enumeration of the dangers is to be found in earlier texts as well, such as the *Aṅguttara-nikāya* (*Kessivagga* 119-20; Vol. II:121) and the *Divyāvadāna* (92.25-8). The cult was already prevalent at the time the Chinese pilgrim Fa-hien came to India in the year A.D. 399 (Winternitz 1933, II: p. 306; Schlingloff 1988: ch. 18). According to the available sculptures from Mathura, standing and seated images of the Bodhisattva Avalokiteśvara for worship are dated from the reign of Kaṇishka II, none being available from the earlier period (Mitterwallner 1986: pp. 115-24).

What is, however, worth mentioning are the early beginnings of the concept. Perhaps the earliest representation of a seafarer in distress is to be seen on a medallion at Bharhut which shows a gigantic sea-monster threatening to swallow a boat (Barua 1934: p. 78). On the basis of the inscription the merchant has been identified as Vasugupta who was saved by meditating on the Buddha in his moment of peril. Chronologically, the next depiction is at Mathura where the Bodhisattva in the form of a horse saves some shipwrecked sailors from a group of hungry *yakshīs* or female demons (*Jātaka*, Bk II, no. 196).

Through what channels did Buddhism spread, and by whom? The Buddha from the outset conceived the *saṅgha* as a missionary organisation and monks and nuns were exhorted to go out and preach—no two going the same way nor being allowed to turn down any invitation to preach (*Vinaya* I.21). Indeed while monks were not normally allowed to travel during the rainy season an exception is made for the monk who is with a caravan or on a ship (*Vinaya* I.52).

One of the controversial issues relating to the history of early Buddhism is the question of a distinctive Buddhist identity, and to what extent it was different from a Brāhmaṇical identity. A criticism that has often been made is that the Buddha preached a doctrine which prescribed a path to salvation and was not inclined towards expounding a ritual or communal religion. Thus the Buddha neither tried to abolish the caste system nor to do away with slavery—it was only those who joined the *saṅgha*—the professional salvation-seekers who were required to renounce conformity with the practices of the wider society. This statement is valid to a point but need not necessarily imply a contradiction, as there was no dichotomy between the two aspects of religion in ancient India or in the countries culturally influenced by India (Gombrich 1988: pp. 23-81). Thus while the lay community followed the precepts and doctrines of the *saṅgha* in its search for salvation, its daily life continued to be governed by Brāhmaṇical rituals. It is significant that an inscription at Kuda refers to the gift of a *brāhmaṇī* Bhayila, wife of a *brāhmaṇa upāsaka* Ayitila (Lüders 1912: no. 1050).

In contemporary Theravādin societies, the term *upāsaka* is generally applied to people who spend considerable time and energy on Buddhist activities, whether in private rituals or in organising support to the *saṅgha* (Gombrich 1988: p. 75). The term is earlier used in the early historical donations to the *saṅgha*. These together with the extensive adoption and use of Buddhist symbols and the location of Buddhist monasteries along trade-routes are ample evidence for the existence of a Buddhist trading diaspora in the early historical period. Ritual religion, however, continued to be dominated by Brāhmaṇical precepts.

Thus the data presented so far explicitly supports the view that Buddhism was the dominant religion in the Indian subcontinent between 400 B.C. and A.D. 300 and was patronised to a large extent by trading and merchant groups. It was also at this time that there was an expansion of trading networks both overland and maritime. This expansion cannot be dealt with here owing to spatial constraints, but has been discussed elsewhere (Ray 1989a; Ray forthcoming). One of the lucrative ventures frequently referred to in literary sources at this time is the sea-lane to parts of South-east Asia. A variety of people ranging from princes to monks and minstrels are mentioned as voyagers on ships in quest of riches and fortune.

A major problem is to identify ideological changes within South-east Asia at the beginning of the Christian era in the total absence of written records. We know very little of the belief systems of the early South-east Asian communities; burial was the main form of the disposal of the dead in mainland and peninsular South-east Asia and 'prehistoric graves with sumptuary goods and status symbols reveal hierarchical distinctions' (Wolters 1982: p. 5). Slab-lined graves and boat-burials predominate in Thailand and the Malay peninsula, and archaeological excavations at many of these burial-sites indicate that they actively participated in the local maritime network extending from the Indian subcontinent in the west to the Vietnamese coast in the east. Objects of foreign workmanship include beads of carnelian, etched carnelian and glass and the Dong Son drums.

In the Indonesian archipelago, the early Metal phase is associated with a variety of funerary monuments. The most striking are the stone monuments on the Pasemah plateau in Sumatra (Bellowood 1985: p. 293). For the moment there is little evidence of Indian contacts in Sumatra, though Dong Son drums have been reported from coastal sites. In Java and Bali, the early Metal phase assemblages are associated with slab-graves and jar-burials and many of the coastal sites in the two islands provide evidence of maritime contacts. In addition to carnelian and glass beads, sherds of the Rouletted Ware which occur extensively along the east coast of India, have also been reported. It is then axiomatic that within this diverse fabric of society no single model can explain the process of social change. The trajectory of development would vary with the micro-environment and so would the adaptation and indigenisation of Indian influences.

What is relevant to this discussion is that there is a shift in the nature of settlement in the early centuries of the Christian era. There is an increase in the number of sites and one of two major centres emerge in the settlement hierarchy. The new centres of power were located in the fertile river-basins of mainland of South-east Asia, such as the Irrawaddy, Chao Phraya and Mekong valleys. These are also associated with the early political elite and surface-finds indicate the presence of statuary and religious monuments increasingly adopting the use of bricks.

A number of wooden images of the Buddha dug out from places in the Mekong delta have been radiocarbon dated between the second and seventh centuries A.D. (Smith & Watson 1979: p. 259). U Thong and Nakhon Pathom have yielded large quantities of gold jewellery similar to that from Taxila and Oc-Eo together with votive and Buddhist images embossed on heavier gold foil (Lyons 1979: p. 355). The problem is that as the bulk of the jewellery is in private collections of dubious provenance, documentation and study becomes difficult.

Excavations at Beikthano in the middle Irrawaddy valley have unearthed traces of a *stūpa* with similarities to that from Nagarjunakonda (Aung Thaw 1972: pp. 18-9) as well as structures described as residential quarters for monks. The site is dated to the fourth-fifth centuries A.D. and the nature of the finds show similarities with those from Nakhon Pathom and other sites in the Chao Phraya basin.

So far there is little evidence for structural activity in the Chao Phraya valley in the pre-Dvārāvatī period. Excavations at the site of Tha Muang within the precincts of the old town of U Thong led to the recovery of numerous bricks and brick-fragments in the pre-Dvārāvatī levels. This led the excavator to suggest that they may have been part of a religious or *stūpa* complex, as brick was not known to have been used for non-religious construction at this time (Loofs 1979: p. 349).

The evidence from Oc-Eo is somewhat similar; while the site has yielded a range of objects obtained from the Indian subcontinent, there are no indications for the existence of any structure prior to the fifth century A.D. Parmentier (1927), however, suggested that the small brick sanctuaries found in the vicinity may have housed the wooden images of the Buddha found in the area.

Another region that needs to be considered in some detail is the Malay peninsula. Coastal sites on the eastern and western littorals of the Malay peninsula participated in the local trading circuit especially with settlements on the Vietnamese coast as suggested by the extensive distribution of the Dong Son drums. Certain pockets emerge in the early historical period—Kedah on the Malaysian coast and Chaiya and Nakhon Si Thammarat on the south-east coast of Thailand. Settlement at Kuala Selinsing, a site 100 km. south of Kedah, dates to around the second century A.D. (Stargardt 1984: p. 6). However, it is the Bujang valley and the plains of the Merbok and Muda further north that provide indications for Buddhist structural activity dated from the fifth-sixth centuries onwards. In addition to four Buddhist inscriptions, this phase has yielded votive tablets and images of the Buddha (Shuhaimi & Yatim 1990).

Three Buddhist inscriptions found in the Bujang valley are dated to the fifth century A.D. It was earlier believed that these inscriptions were imports into the Malay peninsula, but a more recent study has shown that the stone used is shale which is locally available, thereby indicating that these inscriptions were incised at the site (Allen 1986-87: pp. 37-8).

In the Indonesian archipelago, the earliest Sanskrit inscriptions have been found in Java around Jakarta and Bogor and belong to Pūrṇavarman, possibly of the fifth century A.D. Sixty-eight protohistoric sites have been identified in and around the region. Archaeological exploration has also revealed extensive brick remains at Batujaya and Cibuaya, though more work is required to identify the religious affiliation of these structures. Another early site is that of Kutei in Kalimantan. Here seven *yūpa* inscriptions were found, inscribed on pillars of local stone.

In addition to these structural remains, there are references to the presence of *brāhmaṇas*. An oft-quoted example is the Chinese text *Liang-Shu* which refers to Tun-Sun in a schedule of territories incorporated in the 'kingdom' of Fu-nan in the third century A.D. Here more than a thousand *brāhmaṇas* lived and 'devoted themselves solely to the study of sacred texts, purified themselves with fragrant flowers and practised *tapas* by day and night' (Wheatley 1983: p. 299). Early Chinese writings need to be used with caution, as it is now clear that many of the terms used by them are not accurate descriptions of reality. These include terms like 'kingdom' which refers to chiefdoms rather than centralised polities. Similarly the word *brāhmaṇa* referred to is more likely to be a generic term for priests.

Scholars writing on South-east Asia (*ibid.*) have often assumed a migration of *brāhmaṇas* to the courts of the emerging chiefdoms in the region. This assumption, largely based on inscriptional evidence of post-eighth century, does not hold for the earlier period. As has been discussed in this paper, Buddhism was the dominant religion in South Asia up to the early centuries of the Christian era. But the equation between Buddhism and Brāhmaṇism underwent a change from the fourth century onwards. With the evolution of the Brāhmaṇical temple, Buddhist monasteries gradually started losing ground in the Indian subcontinent and could no longer attract patronage and donations. This in turn influenced the economic structure in the region and the make-up of the trading networks.

Besides, by the middle of the first millennium A.D. several crafts which owed their inspiration to the Indian subcontinent were widely practised in South-east Asia. These included brick-making, working in stone, especially the production of images, writing and more secular occupations such as bead-making. The construction of Buddhist monuments at a variety of sites in South-east Asia and the local engraving of inscriptions are further indicators of the extent of Indian influence. This could not have been the outcome of inviting a few *brāhmaṇas* to the royal courts, but was the result of maritime contacts starting from the beginning of the Christian era.

To summarise the discussion: maritime trade in the early historical period was considered a worthy occupation owing to the supportive role of Buddhism. Monks travelled on sea-voyages and it was through these channels that varieties of influences were disseminated. Maritime trade assumes a crucial importance in the context of South-east Asia, because of the unequal distribution of natural resources in the region. Thus though the northern mainland has moderately rich deposits of copper, the bulk of the tin is concentrated in the peninsula. In contrast, iron-ore is more evenly distributed. As a result in most parts of South-east Asia, copper and iron were introduced at about the same time in the centuries around the Christian era. It was also through these early metal age networks that the prestige goods of Indian origin were dispersed and more lasting changes introduced with the expansion of the Buddhist trading diaspora. An issue that is outside the scope of this paper is the role of South-east Asian communities in the maritime network, though this has been dealt with elsewhere (Ray forthcoming).

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37

Vaṅgasāgara-saṁbhāṇḍāriyaka: a riverine trade-centre of early medieval Bengal

Ranabir Chakravarti

I

The ongoing and increasingly-intense interactions between experts of earth and social sciences have in recent years left a definite mark on historical researches. Historians have been showing keen interests in the study of human settlements vis-a-vis the existing environmental, socio-economic and political conditions of past ages. There is little doubt that these interrelating factors do give shapes to human habitats which are among subjects of major concern of historians. Such trends in historiography appear to have encouraged historians of early India to take a close look at different types of settlements and their functional importance. It is only natural that the predominantly agrarian set-up of Indian society would generally favour a sustained research in rural settlements (both at micro and macro levels).[1] Despite the definite thrust on understanding rural settlements and society during the early period of Indian history, historians, however, are not disinclined to the study of non-rural spaces. In fact, the study of the processes of the emergence, spread and decay of early Indian urban centres over the last three decades has been one of the most significant facets of historical researches on ancient India.[2]

The major problem of taking up such a subject for in-depth research is of course the paucity of evidence which plagues historians of early India, particularly those interested in socio-economic history. It is true that a judicious combination of archaeological and epigraphic data has often led to our better understanding of the nature of both rural and non-rural settlements of early India. The wealth of literary/textual information on different categories of settlements cannot of course be lost sight of. But these often tend to present a stereotyped and/or idealised picture which may have some relevance to the historian as and when they are corroborated and supplemented by epigraphic sources and archaeological remains known from explorations and excavations.

Among non-rural settlements urban areas and commercial centres seem to enjoy historians' preference. But sustained studies of early Indian port-towns are not frequently carried out. The recent spurt of publications on the Indian Ocean studies is expected to give a definite boost to the researches on ancient ports—whether located near or on the coast or situated in the interior on the banks of rivers.[3]

II

These preliminaries may now be followed by our particular attention to a non-rural settlement of the early medieval Bengal. It must, however, be made clear at the outset that there was no 'Bengal' in pre-1200 A.D. days. The undivided British province of Bengal embraced areas now substantially included within West Bengal and Bangladesh. Early Bengal may be taken here—for the sake of convenience—to denote roughly the same area. But in pre-1200 A.D. period the area in question had within it four major geographical units with their distinctive ethos. These were: (i) Puṇḍravardhana (originally denoting northern part of Bengal, i.e. Rajshahi-Bogra-Dinajpur areas of Bangladesh and part of northern sector of West Bengal, but subsequently covering—in addition to the above mentioned zone—very large areas to the east of the Bhagirathi up to Chittagong and Sylhet); (ii) Rāḍha (roughly denoting areas to the west of the Bhagirathi, i.e. present Districts—Birbhum, Bankura, Burdwan, Hooghly, Howrah and Midnapur in West Bengal); (iii) Vaṅga (embracing Dhaka-Faridpur-Vikrampur and Barishal and Buckerganj areas in Bangladesh)[4] and (iv) Samataṭa-Harikela[5] (the territory to the east of the river Meghna, i.e. Noakhali, Comilla, Chittagong and adjacent areas in Bangladesh).[6] There was neither any uniform nor unilinear socio-economic development in these four units which were never unified under a single paramount political power in the pre-1200 A.D. times.[7] The early medieval period did witness the rise of the Pālas and then the Senas as the most formidable powers over this area,[8] but they did not rule over the entire area of early Bengal. Among political powers of early medieval Bengal which made their presence felt in the history of this region, mention must be made of the Devas and Chandras.[9] The Chandra rulers would figure prominently in our present discussion. They came into political limelight in and around the beginning of the tenth century A.D. in eastern part of Bengal. Their earliest stronghold seems to have been in Harikela, but gradually their power grew to gain mastery over Samataṭa, Vaṅga and also Śrīhaṭṭa by the second quarter of the tenth century A.D.[10]

The most reliable source of information for early medieval Bengal, including the territory under the Chandras, is epigraphic. Most of the inscriptions record transfer of plots of land and/or transfer of revenue in favour of individual Brāhmaṇas and religious institutions by the issue of copper-plate charters. The present paper particularly focuses on one such copper plate, *viz.*, the Madanpur copper-plate charter of Śrīchandra, the most important ruler of the Chandra dynasty, who is known to have had a long reign of nearly half a century (*c.* A.D. 925-75). The plate was first edited and partly translated by R.G. Basak[11] and was later commented upon by D.C. Sircar.[12] The plate was issued, according to Basak, in the 44th year of Śrīchandra's reign, i.e. A.D. 969, while Sircar dated it to the 46th regnal year, i.e. A.D. 971.

The main purport of the plate is to record the gift of a plot of land by Śrīchandra to a Brāhmaṇa named Śukradeva whose genealogy is also given in the text. The proclamation was issued from the victorious camp (*jayaskandhāvāra*) at Vikramapura. The donated plot measured, according to Basak, 8 *droṇas*; a revised reading by Sircar shows that actually 8 *droṇas* and 8 *gaṇḍas* of land were transferred to the donee.[13]

The area where the donated plot was situated gives us some interesting clues about the settlement. Land was donated to Śukradeva at a place called Vaṅgasāgara-saṁbhāṇḍāriyaka in Yolāmaṇḍala (*maṇḍala* = an administrative unit smaller than a province) included within Puṇḍravardhanabhukti.[14] The administrative unit Yolāmaṇḍala also figures in the Dhulla copper plate of Śrīchandra.[15] N.K. Bhattasali places Yolāmaṇḍala to the north of the river Dhaleswari in the Manikganj subdivision of the Dhaka district.[16] Ancient Yolāmaṇḍala seems to have covered areas around modern Sabhar (about 15 miles to the north-west of Dhaka) which has yielded many significant archaeological objects, including the present Madanpur copper plate under discussion.

The rather unusual toponym Vaṅgasāgara-saṁbhāṇḍāriyaka calls for a close scrutiny. Neither Basak nor Sircar offers any translation or explanation of such a queer place-name. Plots of land donated in copper plates are generally found to have been located in rural areas, minute details of which appear in the record along with precise information regarding relevant administrative divisions and units. The Madanpur copper plate merely refers to the name of the *bhukti* and the immediately lower administrative unit, *maṇḍala* (literally, circle), without at all mentioning any name of a village. This may give one the impression that Vaṅgasāgara-saṁbhāṇḍāriyaka was not situated in a rural space. Moreover, no information regarding detailed boundary demarcations of the donated plot and adjacent rural areas figures in our record, though this is a very common feature of early medieval land-grants. This further strengthens our inference that Vaṅgasāgara-saṁbhāṇḍāriyaka was a non-rural settlement.

The term *saṁbhāṇḍāriyaka* may stand for a place where storage of items (*bhāṇḍāra*) could be appropriately (*samyak*) done.[17] Such storage of items may logically be associated with commercial activities at a given centre of exchange. This leads to a further inference that an exchange centre such as the one under consideration could have also offered warehousing facilities (*saṁbhāṇḍāra*). The *saṁbhāṇḍāriyaka*, as a non-rural centre of commerce, may correspond to *pūṭabhedana*, literally meaning a place where lids (of merchandise) were broken (by merchants for sale).[18] A *pūṭabhedana*, like the *saṁbhāṇḍāriyaka*, seems also to have provided arrangements for the storage of 'sealed' items of trade, 'seals' having been stamped on consignments to attest their quality, purity and weight. Both *pūṭabhedana* and *saṁbhāṇḍāriyaka*, therefore, may have had similar functions as a particular type of trade centre which offered facilities of warehousing of commodities.

The other component of the place-name, Vaṅgasāgara may now be examined. It should denote the sea (*sāgara*) of Vaṅga. While Vaṅga generally covers the central part of deltaic Bengal (i.e. Dhaka-Vikrampur-Faridpur), it also occasionally included in it areas near the coast, known in ancient times variously as Vaṅgāla (Vaṅga + *āla*) and Anuttaravaṅga (southern Vaṅga).[19] Ancient and early medieval Vaṅga thus extended up to Barishal-Buckerganj areas of the present Bangladesh. Vaṅgasāgara may, therefore, indicate the early medieval name of the eastern sector of the Indian Ocean. This is possibly the earliest base of an indigenous name wherefrom later terms like the Bay of Bengal and Vaṅgopasāgara (in Bengali) were derived.

The history of maritime affairs in and associated with the Bay of Bengal has to be appreciated in the broader background of activities in the vast maritime space known as the Indian Ocean. The expression 'Indian ocean' is based on the Latin expression '*mari Indicum*' used for the first time by Pliny in his *Naturalis Historia* (completed in or before A.D. 79).[20] His *mari Indicum* or the Indian Ocean apparently has a narrower connotation than that of the homonymous maritime space in modern times.[21] Pliny seems to have placed his *mari Indicum* to the south of Indian peninsula. In fact, the Classical authors were better conversant with the Erythraean Sea by which a considerable part of the western Indian ocean was denoted. The eastern segment of the Indian Ocean was vague to the Classical authors. Ptolemy (*c.* A.D. 150) refers to the Gangetic Gulf[22] for the first time and this has usually been identified with the present Bay of Bengal. Sanskrit sources generally use two terms to differentiate between the Arabian Sea and the Bay of Bengal: these two are *paśchima* (western) and *pūrva* (eastern) *jaladhi* (sea). Interestingly enough, some epigraphic records, datable to the second half of the sixth century A.D., and discovered from Vaṅga[23] (i.e. Dhaka-Vikrampura-Faridpur region), speaks of *prāk-samudra*. The expression has been interpreted to mean the eastern sea.[24] This is of course the same as the Bay of Bengal which was definitely known to the inhabitants of Vaṅga in the latter part of the sixth century A.D. The Madanpur copper plate shows that the eastern sea or the Bay of Bengal was called Vaṅgasāgara in the third quarter of the tenth century A.D.

The practice of naming the Bay of Bengal or parts thereof after a regional unit of early Bengal (i.e. Vaṅga) appears to have resembled the custom of naming the Bay of Bengal (or parts thereof) as Bahr Harkand (or Harkal) in Arab accounts.[25] The anonymous Persian text on geography *Hudud al Alam* (A.D. 982) uses this term to denote the Bay of Bengal which was one of the seas of India, according to the Arab writers.[26] The name Harkand or Harkal is derived from Harikela, a territory contiguous to Samtaṭa, and identified with the modern Noakhali, Comilla, Chittagong and adjacent areas in Bangladesh. That Harikela was an important commercial zone since the late seventh century A.D. is clear from the Chinese evidence.[27] But its rise to prominence in the international maritime trade of the Indian Ocean in general and the Bay of Bengal in particular began from the ninth century onwards. Its major port Samandar (located at or near modern Chittagong) attracted considerable attention of Arab writers (and obviously merchants also).[28] The unmistakable evidence of the commercial activities in this area is furnished by the continuous minting of high-quality silver coinage from seventh to the thirteenth centuries. The integration of this area into the larger maritime long-distance trade networks in the Indian Ocean can further be demonstrated by the discovery of a gold coin of the Abbasid Caliphate Abu Ahmad Abdallah al Mustasim Billa (A.D. 1242-1253) from Mainamati.[29] All these may drive home the suggestion that both Vaṅgasāgara and Bahr Harkand (*Harkal*) denoted more or less the same maritime space, the importance of which in sea-borne trade can hardly be lost sight of.

One may remember that the Chandras had their primary strong-hold in Harikela.[30] This provided the platform wherefrom the Chandras began to spread their authority over Vaṅga, Vaṅgāla and Śrīhaṭṭa, due principally to the aggressive designs of Śrīchandra.[31] This firmly established the Chandras as the most formidable power in Vaṅga during the tenth-eleventh centuries. Significantly enough, the lexicographer Hemachandra of the eleventh century equated Harikela with Vaṅga.[32] If these two territorial names apparently became coterminous, it would be logical to suggest that Bahr Harkand (or Harkal) and Vaṅgasāgara were virtually interchangeable terms to denote the same maritime space, i.e. the Bay of Bengal.

The compound expression Vaṅgasāgara-saṁbhāṇḍāriyaka may, therefore, speak of an exchange centre associated with the trade in the Bay of Bengal (*Vaṅgasāgara*).[33] We may now take a close look at the officers present at Vaṅgasāgara-saṁbhāṇḍāriyaka at the time of the grant of land to Śukradeva. While most of the names of officers are commonly seen in many epigraphic records of early medieval Bengal, three names seem to be rather unusual. They are *nauvāṭaka*, *arddhanauvāṭaka* and *gochchhakapati*. The term *nauvāṭaka* occasionally occurs in some records in the sense of fleet of boats, the context being descriptions of movements of victorious fleets along certain rivers.[34] But the Madanpur copper plate of Śrīchandra furnishes the solitary evidence of the use of the term in the sense of a royal officer. 'In the context of our plate', suggests Basak, 'the word *nauvāṭaka* may, therefore, refer to the Head of the royal navy.'[35] It would, however, be difficult to prove that the Chandras ever maintained a regular navy. Seen from this angle, *nauvāṭaka* could have been an officer entrusted with the affairs of the mercantile marine. The expression *ardhanauvāṭaka*, also unique in the Bengal inscriptions, therefore stands for an officer of the same department, but junior to the *nauvāṭaka*.[36] The presence of the officer looking after the mercantile marine, along with his subordinate, at Vaṅgasāgara-saṁbhāṇḍāriyaka further highlights the commercial significance of the non-rural settlement. Now to the term *gochchhakapati*. Basak equates it with Sanskit *goshṭhakapati*, i.e. the administrative head in charge of pasture lands and cowherds.[37] Without at all disputing Basak's interpretations, an alternative meaning may be ventured here. The term *goshṭha/goshṭhī* may also be taken to mean an association, a professional group or body. In this sense it has a close correspondence to terms like *śreṇī*, *gaṇa*, *pūga*, *saṅgha*, denoting a guild-like association of persons following a common craft or trade. *Goshṭhakapati*, therefore, may signify an officer in charge of *goshṭhīs* or guilds.[38] At a commercial centre such as Vaṅgasāgara-saṁbhāṇḍāriyaka the presence of an officer looking after *goshṭhīs* or guilds is a distinctly likely possibility. The functions of these three officers, *viz.*, *nauvāṭaka*, *arddhanauvāṭaka* and *gochchhakapati* being oriented towards the non-rural sectors of the economy, they underline the material interests of the Chandras in Vaṅgasāgara-saṁbhāṇḍāriyaka.[39]

III

The above discussion may help understanding the nature and possible functions of the area under review. But where was it actually located? There is no direct evidence to suggest its location on or near the coast. On the other hand the record gives an impression that the donated plot was not far away from either the issuing centre (Vikramapura) or the findspot (close to Sabhar). The archaeological treasures of Sabhar have aroused interest of scholars over a long time. Lying at distance of 15 miles to the north-west of Dhaka and on the bank of the river Bangshi, Sabhar has several mounds. The Kotbari mound has a large rectangular area (720′ x 550′), enclosed by a mud wall the height of which was 25′ (as reported in 1921). That it was a flourishing Buddhist centre can clearly be seen in a number of Buddha-images—inscribed as well as uninscribed (from the Rajasan mound) —, a *stūpa* (near the bus-stand at Sabhar) and a *stūpa* complex of impressive size (from the Rajbari mound). Among other antiquities discovered from Sabhar, mention may be made of six post-Gupta gold coins and two inscriptions (from Harish Chandra Rajar Bari), a silver Harikela coin and a gold coin, datable to the eighth century.[40] The location of the site on the bank of river having connexions with distant areas has naturally encouraged archaeologists to suggest that Sabhar was a riverine port in older times. It still commands a respectable commercial traffic in timber, rice, pulses and maintains linkages with Barishal, Sylhet and Rajshahi.[41] The importance of this rich site can hardly be overemphasized, particularly in view of its location on the bank of a river. Long ago, N.K. Bhattasali guessed that the present name Sabhar could have been derived from Sanskrit *sambhāra* which means wealth, collection of items etc.[42] Such a name would aptly fit a riverine archaeological site with definite commercial significance. The discovery of the Madanpur copper plate of Śrīchandra from the Sabhar area may therefore strongly suggest that a *saṁbhāṇḍāriyaka* (a trade centre with warehousing facilities) could very well have existed at Sabhar in the early medieval times. Vaṅgasāgara-saṁbhāṇḍāriyaka thus would closely correspond to present Sabhar and also appears to have been a riverine port under the Chandras.

The suggested identification of Vaṅgasāgara-saṁbhāṇḍāriyaka with present Sabhar near Dhaka may raise another question: how to explain the possible connexions of this *saṁbhāṇḍāriyaka* at Saṁbhāra or Sabhar with Vaṅgasāgara or Bay of Bengal which was at a distance from the said riverine port? The problem may be tackled by going back to the conditions in Vaṅga in the second half of the sixth century A.D. It was during this time that Vaṅga emerged as an independent political entity under three rulers, Dharmāditya, Samāchāradeva and Gopachandra.[43] The politico-administrative and socio-economic history of Vaṅga during the latter half of the sixth century A.D. is known from several copper plates issued by these kings. Land-transactions were recorded in the Vārakamaṇḍala-vishaya (*vishaya* = district, the area embracing parts of Goalando subdivision and Kotalipara region in the Gopalganj subdivision of the Faridpur district), following the customs or practices prevalent in the territory up to the sea (*prāk-samudra-maryyādā*).[44] The expression *prāk-samudra* has also been taken to mean the eastern sea (i.e. the Bay of Bengal).[45] Whichever interpretation of *prāk-samudra* is accepted, it cannot but denote the Bay of Bengal. This unmistakably shows that the Vaṅga country, though not situated in a littoral tract, had an intimate knowledge of the eastern sea. Ancient Vaṅga had in it another significant administrative centre named Navyāvakāśikā, where as important an officer as the *Mahāpratīhāroparika* (*Mahāpratīhāra* = chief of palace guards and *uparika* = local governor), named Nāgadeva was stationed.[46] Navyāvakāśikā literally means a new opening or channel (*navya* = new and *avakāśa* = opening, canal).[47] The relevance of such a new opening in a territory designated '*prāk-samudra*' can be properly appreciated if we logically surmise that such 'new openings' (or canals) led to new access to the sea. Changes in river courses leading to new channels in the delta are quite common in this area. Such channels—old or new—were mostly navigable and must have facilitated riverine communications between Vaṅga and littoral areas in the Bengal coast. Ancient people and rulers of Vaṅga must have been well aware of the economic significance of the riverine connexions of Vaṅga, oriented to the sea. That ancient Vaṅga (and also Samataṭa) was very rich in inland riverine communication network will clearly be illustrated by the frequent epigraphic references to *nau-bandhakas/nau-daṇḍakas* (parking stations for boats and vessels plying in rivers).[48] Even more interesting is the information about a *nāv-ātā-ksheṇī*, figuring in a record from ancient Vaṅga. This term seems to have denoted a ship/boat building harbour (*nau* = boat/vessel/ ships, *ātā* = door-frame; *ksheṇī* from *kshayaṇa* = harbour).[49] Information regarding *nau-vāṭakas* and *nāv-ātā-ksheṇī* invariably occurs in the final portions of grants where boundary demarcations of the donated area are specified. Seen from this angle, boat-parking stations and boat/ship building harbours of ancient Vaṅga were prominent enough to have been regularly considered as important landmarks in the rural space. The commercial significance of riverine communication networks in ancient Vaṅga, cannot, therefore, be overemphasized. The awareness of the rulers of Vaṅga in that direction can clearly be appreciated in the appointment of an officer, *Vyāpāra-kāraṇḍya* in Vārakamaṇḍala-vishaya during the reign of Dharmāditya.[50] He appears to have been an officer, according to Pargiter, 'who has to regulate trade.'[51] All these may help us understand why an administrative unit had to be set up at Navyāvakāśikā in the same *vishaya*. In this context the earlier suggestion of Bhattasali that Navyāvakāśikā was the same as Sabhar itself,[52] assumes special significance. The commercial significance of this area may, therefore, be pushed back to the latter half of the sixth century A.D.

The area of Vaṅga continued to maintain connexions with the Bay of Bengal and the littoral areas of Bangladesh in early medieval times through its many rivers. This must have resulted in the coining of the name Nāvya to denote a part of Vaṅga, as seen in the Calcutta Sahitya Parishad copper plate of the thirteenth century (*Pauṇḍravardhanabhuktyantaḥpātī-Vaṅge nāvye*).[53] The same record speaks of the village of Vinayatilaka (in Nāvya) which had the sea (i.e. the Bay of Bengal) as its eastern boundary (*nāvye Vinayatilakagrāme pūrvve samudrasīmā*) and a channel as its southern limit (*dakshiṇe praṇullībhūḥ sīma*).[54] The term *nāvya* was used definitely to highlight the navigability of water courses (rivers, new channels, canals etc.), up to the sea. If B.C. Sen's reading of the Rampal copper plate of Śrīchandra is accepted, then the existence of Nāvyamaṇḍala, an administrative unit, in Vaṅga has to be recognized. B.C. Sen locates it in Barishal-Buckerganj area and it had the main stream of the Meghna as its eastern limit.[55] The navigability of rivers of ancient and early medieval Vaṅga may be appreciated in view of Sabhar's riverine communications with Barishal also in recent times.

IV

The above discussions would underline the importance of riverine commercial networks in early Vaṅga which had connexions with the littoral areas. This explains the significance of the archaeological site at Sabhar which seems to have functioned as an inland riverine port—first as Navyāvakāśikā and then as *Vaṅgasāgara-saṁbhāndāriyaka*—of ancient and early medieval Vaṅga. Trade at this centre and it riverine linkages with the Bengal coast was largely responsible for its being considered as an administrative centre under early rulers of Vaṅga and also the Chandras. Around the sixth century A.D. it emerged as a riverine port, while in the third quarter of the tenth century it had a *saṁbhāṇḍāriyaka*, i.e. it probably offered storing/warehousing facilities.

But what happened at Sabhar between the sixth and tenth centuries remains in the dark. Precisely during this time, epigraphic evidence suggests the emergence of another riverine port to prominence. This is Devaparvata, situated in Samataṭa-Harikela region (i.e. roughly to the east of the Meghna). It has been identified with Mainamati-Lalmai in Comilla, Bangladesh. The earliest epigraphic description of Devaparvata figures in the Kailan copper plate of Śrīdhāraṇarāta (*c.* A.D. 665-75). Devaparvata was encircled by the river Kshīrodā (i.e. modern Khira or Khirnai), both banks of which were decorated by boats and in which elephants bathed. Devaparvata is further described as *sarvatobhadra*, meaning either it was approachable from all four sides (by river?) or it had gates on all four sides (*Atha mattamātaṅga-śata-sukha-vigāhyamāna-vividha-tīrthayā naubhir= aparimitābhir=upārachitakulayā parikshitād=abhimatanimnagāminyā kshīrodayā sarvvatobhadrakād=Devaparvvatāch.*[56]) This unmistakably shows Devaparvata to be a riverine port in Samataṭa in the second half of the seventh century A.D. Devaparvata was also the principal political centre of the Rāta rulers. Apart from being a riverine port and a political centre, Devaparvata was situated in an area which had a distinct orientation to riverine communications. Towards the end of the record three boat parking-stations (*naudaṇḍakas*) appear. The eastern boundary of the donated plot had *villa-bhaṅga* (cf. the Bengali word *bil*, moss covered with water) which was associated with *nishkrāntaka-pravishṭaka* (facilities of entry and exit of vessels?). Terms like *nau-pṛithvī*, *nau-sthira-vegā*, etc. are used to denote boundary marks.[57] The exact meaning of these unusual words is difficult to ascertain. But that these were intimately associated with the plying of boats in the inland riverine network is beyond doubt.

Devaparvata once again figures in the Asiatic Society copper-plate of Bhavadeva Abhinavamṛigāṅka (*c.* A.D. 765-80), a ruler belonging to the Deva dynasty of Samataṭa.[58] Devaparvata's association with the river Kshīrodā appears in this record too. The interesting point is that the epigraphic account of Devaparvata here is more elaborate and grand—though doubtless stereotyped—than the one found in the Kailan copper-plate inscription composed nearly a century ago. In the eighth century Devaparvata is explicitly stated to have been the *jayaskandhāvāra* (literally,victorious camp) which in the then phraseology was often conterminous with the royal capital or at least a major political centre.[59] The more elaborate account and the epithet *jayaskandhāvāra* of Devaparvata in the eighth century point to the enhancement of the status of Devaparvata both as a riverine trade centre and a political centre. The Devas as the local power of Samataṭa did not fail to appreciate the significance of this riverine port.

The last known epigraphic evidence of Devaparvata is furnished by the Paschimbhag copper plate of Śrīchandra (*c.* A.D. 925-75), dated in his regnal year 5 (i.e. *c.* A.D. 930).[60] Once again the recurrent feature of the account of Devaparvata is its location on the Kshīrodā (*Kshīrodām=anu Devaparvata=iti śrīmat=tad=etat puraṁ*), on which plied many boats. That Lālambīvana (same as the Lalmai) was searched by hundreds of boatmen (*Lālambivanam=atra nāvika-śatair=anvishṭa*) is also mentioned by this record. This further underlines the navigability of Kshīrodā and the role of Devaparvata as a riverine port. But significantly enough, the record was issued by Śrīchandra not from Devaparvata, but from Vikramapura, the *jayaskandhāvāra*. In fact, the reference to Devaparvata figures in the context of Trailokyachandra's (father of Śrīchandra) conquest of Samataṭa country and his authority over the riverine port. Though Devaparvata is mentioned in Śrīchandra's record of *c.* A.D. 930, it has its proper relevance to the previous reign of his father.

The above survey indicates that Devaparvata was the most important riverine port in Samataṭa country from the second half of the seventh to the first quarter of the tenth century. The Samataṭa-Harikela country during this period provided the primary power-base to the Rātas, Devas and early Chandra rulers. The accession of Śrīchandra to the throne in *c.* A.D. 925 signalled a remarkable expansion and growth of the Chandra political power. By the time of the composition of the Paschimbhag copper plate (i.e. *c.* A.D. 930) Śrīchandra's authority spanned over wide areas including Kāmarūpa, Śrīhaṭṭa and Vaṅga,[61] while retaining his control over Samataṭa-Harikela zone. On or before A.D. 930 Vikramapura became the new *jayaskandhāvāra* or seat of power of the Chandras, indicating the shift of the stronghold of the Chandra power from Samataṭa to the very heart of Vaṅga. This probably became necessary in order to ensure a better administrative integration of the expansive Chandra domain. The reasonable assumption would be to view Vaṅga as a more important zone than Samataṭa-Harikela area in terms of the Chandra polity and politics.

As Vaṅga began to emerge into limelight, a riverine port like Sabhar, situated not far away from Vikramapura, would gradually come into greater prominence. Correspondingly, the earlier riverine harbour at Devaparvata in the Samataṭa country seems to have been relegated to a less significant position. The commercial activities at the harbour of Devaparvata are to be situated, at least on epigraphic grounds, in a period of three centuries when nothing is heard about the riverine port at Sabhar, whether as Navyāvakāśikā or under the new name Vaṅgasāgara-saṁbhāṇḍāriyaka. The renewed importance of the riverine port at Sabhar in the tenth century appears to have been due, at least partly, to the interests of the Chandras in this area.

V

The site of Sabhar, therefore, twice came into limelight in four centuries as a riverine port, having linkages with the littoral areas of Vaṅga: first as Navyāvakāśikā in the sixth century and then as Vaṅgasāgara-saṁbhāṇḍāriyaka in the tenth century. A common pattern in the history of this harbour is that on both the occasions its commercial significance was followed by and/or associated with its being a local administrative centre also. Unlike Devaparvata, this riverine port never enjoyed the status of being a *jayaskandhāvāra*.

When the inland riverine port at Sabhar first came to our notice in the second half of the sixth century A.D., the most famous port in Bengal, if not of the whole of north-eastern India, was Tāmralipta (in District Midnapur). Tāmralipta was in a flourishing condition for a further century or slightly more. The last known reference to this harbour figures in a 8th-century record.[62] The gradual decay of this leading port must have adversely affected Bengal's sea-borne trade and also the conditions of inland riverine ports like Navyāvakāśikā at Sabhar. The effect of the decline of this port of international connexions seems to have been overcome with the rise of a major harbour at Samandar, located near present Chittagong in Bangladesh, from the ninth century onwards.[63] Samandar often appears in the accounts of medieval Arab writers as a major harbour. Thus the centre of maritime trade of Bengal seems to have shifted in the early medieval period from Daṇḍabhukti area to Samataṭa-Harikela. The rise of an international harbour in Samataṭa-Harikela would have certainly proved advantageous for an inland riverine port like Vaṅgasāgara-saṁbhāṇḍāriyaka.

Studies in the maritime history and maritime trade generally tend to highlight leading ports with far-flung international network where overland, coastal and overseas routes converged. Priority is given to such celebrated ports of early India like Barygaza, Muziris, Cambay, Quilon, Nāgapaṭṭanam, Kāverīpaṭṭinam, Tāmralipta and Samandar, by maritime historians of early and medieval India. The role of a harbour of international stature cannot adequately be appreciated merely in terms of its littorals and the immediate maritime space. The importance of a port is largely shaped, among other factors, by its hinterland and foreland.[64] The situation of a harbour vis-a-vis its hinterland and foreland can hardly be judged merely by being an 'at sea' historian. The conditions inland are inseparably linked with the affairs in the littorals. It was Fernand Braudel who made us conscious about the unity between the land and the sea by his magisterial study of the Mediterranean Sea. The history of the Mediterranean, wrote Braudel, 'can no more be separated from that of the lands surrounding it than the clay can be separated from the hands of the potter who shapes it.'[65]

Such a perspective may help us appreciate more meaningfully the role of inland riverine harbours of early Bengal, like Vaṅga-sāgara-saṁbhāṇḍāriyaka. They would often remain in the background, overshadowed by international harbours either in an estuary or on a roadstead. But inland riverine ports hold the very life-line of supplies to and from larger ports. The existence of a large port would invariably suggest the existence also of a series of secondary harbours around it or somewhere away, but having definite linkages with the greater port. These smaller inland ports like Navyāvakāśikā or later Vaṅgasāgara-saṁbhāṇḍāriyaka were generally rooted firmly to their respective rural spaces and hence could have held the key to the long distance overseas trade in daily necessities, including crops.

An attempt has been made here to situate the riverine port at Vaṅgasāgara-saṁbhāṇḍāriyaka in the over all background of trade in the eastern sector of the Indian Ocean in the early medieval times. The focus on non-rural spaces often falls on celebrated urban areas, and tends to ignore the smaller ones. 'But it would be mistake,' as Braudel puts it, 'to count the sun-cities—Venice, Florence, Nuremberg, Lyons, Amsterdam, London, Delhi, Nanking, Osaka. Towns form hierarchies everywhere, but the tip of the pyramid does not tell us everything, important though it may be.'[66] If the historian of the Indian Ocean does not wish to be at bay, the importance of such inland riverine ports as the one that stood at Sabhar has to be weighed in.

Notes and references

1. An excellent study on this subject is by B.D. Chattopadhyaya, *Aspects of Rural Settlements and Rural Society in Early Medieval India* (Calcutta,1990).
2. There are large number of informative, analytical and highly sophisticated studies on the Harappan cities which belong to the first urbanization in India. For an updated overview on Harappan urbanism, see Bridget and Raymond Allchin, *The Rise of Civilization in India and Pakistan* (Cambridge, 1982). The second urbanization came into the scene in the Ganga valley around 600 B.C. vide A. Ghosh, *The City in Early Historical India* (Simla, 1973). R.S. Sharma, *Urban Decay in India, 300-1000 A.D.* (Delhi, 1987), situates the decline of urban centres in the feudal social formation in India in the early medieval times. B.D. Chattopadhyaya, 'Urban centres in Early Medieval India: An Overview', in Sabyasachi Bhattacharyya and Romila Thapar (eds.), *Situating Indian History for Sarvepalli Gopal* (Delhi, 1987, pp. 8-33), suggests 'third urbanization' in the early medieval period.
3. For trade in the Indian Ocean the following books are particularly helpful and significant: Ashin Dasgupta and M.N. Pearson (eds.), *India and the Indian Ocean, 1500-1800* (Delhi, 1987); Satish Chandra (ed.), *The Indian Ocean: Explorations in History, Commerce and Politics* (Delhi, 1987); K.N. Chaudhuri, *Trade and Civilization in the Indian Ocean, Economic History from the Rise of Islam to 1700* (Cambridge, 1985) and its recent sequel volume by the same author, *Asia Before Europe, Economy and Civilisation of the Indian Ocean from the Rise of Islam to 1750* (Cambridge, 1990). The thrust of the historians of the Indian Ocean is clearly on the post–1500 phase. For a study of port towns, though not with an in-depth analysis of ancient harbours of India, vide Franz Broeze (ed.), *Brides of the Sea* (Kensington, 1989).

4. The earliest connotation of Vaṅga denotes an area covering modern Districts 24 Parganas (both North and South), Hooghly, Howrah and Midnapore during the first three or four centuries of the Christian era. This earliest connotation of Vaṅga has been suggested by B.N. Mukherjee, *Kharoshṭī and Kharoshṭī-Brāhmī Inscriptions in West Bengal (India), Indian Museum Bulletin* (hereinafter *IMB*), Vol. XXV (Calcutta, 1990) by juxtaposing Kharoshṭī and Kharoshṭī-Brāhmī documents with the Classical and Chinese texts.
5. B.N. Mukherjee, 'The Original Territory of Harikela', *Bangladesh Lalitkalā*, I. 2, 1975, pp. 115-19.
6. For an exhaustive treatment of this four major units, vide A. Bhattacharyya, *Historical Geography of Ancient and Early Medieval Bengal* (Calcutta, 1977).
7. Barrie M. Morrison, *Political Centres and Cultural Regions in Early Bengal* (Indian Reprint, Jaipur, 1980) highlights the distinct ethos, political, socio-economic and cultural, of four major sub-regions in early Bengal.
8. D.C. Sircar, *Pāl-Sen Yuger Vaṁśānucharit* in Bengali (Calcutta, 1982). Political history of the Pālas has to be considerably revised with the discovery of the Jagajjibanpur copper plate of the time of the Pāla ruler, Mahendrapāla, son and successor of Devapāla.
9. *Ibid.*
10. This is clearly proved by the Paschimbhag copper plate of year 5 (i.e. A.D. 930) of Śrīchandra (A.D. 925-75). See D.C. Sircar, *Epigraphic Discoveries in East Pakistan* (Calcutta, 1973), pp. 19-40 and 63-69.
11. R.G. Basak, 'Madanpur Plate of Śrīchandra: year 44', *Epigraphia Indica* (hereinafter *EI*), XXVIII, 1949-50, pp. 57-58.
12. D.C. Sircar, 'Madanpur Plate of Śrīchandra, year 46', (in 'Epigraphic Notes'), *EI*, XXVIII, 1949-50, pp. 337-339.
13. *Ibid.*, *EI*, XXVIII, p. 339.
14. R.G. Basak, *op. cit.*, p. 57, lines 19-20, *Śrīchandrade [vaḥkuśa*]ī śrī-Pauṇḍrabhu*]kty=antaḥpāti-Yolāmaṇḍale Vaṅgasāgara-saṁbhāṇḍāriyake.*
15. N.G. Majumdar, *Inscriptions of Bengal*, III (hereinafter *IB*) (Rajshahi, 1929), pp. 165-66.
16. *EI*, XXVIII. p. 55; N.K. Bhattasali is referred to by Basak.
17. I am grateful to B.N. Mukherjee and Sukumari Bhattacharjee for kindly endorsing this interpretation of mine of the expression *Vaṅgasāgara-saṁbhāṇḍāriyaka.*
18. Specimens of plaster jar-plugs used to seal jars have been found from excavations at Leukos Limen, an early historic port on the Red Sea. See Steven E. Sidebotham. 'Ports of the Red Sea and the Arabia-India Trade', in Vimala Begley and Richard Daniel de Puma (eds.), *Rome and India : The Ancient Sea Trade* (Delhi, 1992), pp. 12-38 (particularly 31 and 32 and figures 2.16 and 2.19). An early *pūṭabhedana* was Pāṭaligāma, which later became the Magadhan capital Pāṭaliputra. Pāṭaligāma, situated at the confluence of three rivers, the Ganga, the Son and the Gandak, is described in the *Mahāparinivvāṇa-suttanta.* The Buddha is said to have prophesied the future greatness of this non-rural centre. This *pūṭabhedana*, like our *saṁbhāṇḍāriyaka*, was also an inland riverine port. Mercantile activities at a *pūṭabhedana* are even more clearly hinted in the *Arthaśāstra* by the use of the term *paṇyapūṭabhedana* (R.P. Kangle, ed. & trn. *The Kauṭilya Arthaśāstra*, I (Bombay, 1969), II. 3. 3; also see A. Ghosh, *op. cit.*, pp. 45-46 and D.D. Kosambi, *The Culture and Civilisation of Ancient India in Historical Outline* (Indian Reprint, Delhi, 1972), p. 130. Somadevasūri's *Nītivākyāmṛitam*, modelled on the *Arthaśāstra*, shows its awareness of the economic importance of a *paṇyapūṭabhedinī* in the tenth century. Somadevasūri, in his other work, *Yaśastilakachampū*, equates *paṇyapūṭabhedinī* with *peṇṭhalpiṇṭha* (occasionally suffixed with *sthāna*). A more elaborate treatment of this has been done in my forthcoming article, 'Trade at a Peṇṭha in the Early Medieval Deccan.'

19. A. Bhattacharyya, *op. cit.*, p. 56.
20. Pliny, *Naturalis Historia*, trn. J. Rackham, (London, 1942). The text reads: '*Indorumque gens incipit, non Eoo tantum mari adiacens verum et meridiano quod Indicum appellavimus*' (VI. XXI. 56). I am deeply indebted to B.N. Mukherjee for kindly drawing my attention to this passage. The significance of Pliny's statement on the naming of the Indian Ocean has been discussed by B.N. Mukherjee in a Bengali article published in the fortnightly *Desh*, December, 5, 1992, pp. 23-29. This being the earliest use of the term, Indian Ocean, it would be now difficult to agree with M.N. Pearson that the term was derived from the early medieval Arabic expression *al bahr al Hindi* (M.N. Pearson, 'The State of the Subject', in Ashin Dasgupta and M.N. Pearson (eds.), *op. cit.*, pp. 9-10.
21. Pliny's *mari Indicum* appears to have been located south of the Indian peninsula. The present map of the Indian Ocean, published by the National Atlas and Thematic Mapping Organization, places this maritime space up to the Cape of Good Hope in the West, to Antarctica in the south and includes the Red Sea, the Persian Gulf, the Arabian Sea and the Bay of Bengal, but leaves out the Java and the China Seas.
22. Ptolemy, *Geographike Huphegesis*, VII. 1.16 quoted in B.N. Mukherjee, *op. cit.*, *Desh.* (see note 20).
23. D.C. Sircar, *Select Inscriptions bearing on Indian History and Civilization* (hereinafter *SI*), I (Calcutta, 1965), pp. 363-77 and 530-31.
24. Ramaranjan Mukherjee and Sachindra Kumar Maity, *Corpus of Bengal Inscriptions* (Calcutta, 1967), p. 77.
25. The earliest use of this term is found in the *Akhbar Al-Sin Wa'l-Hind*, by Sulayaman Al-Tajir *et al.* compiled in A.D. 851. For translation, vide S. Maqbul Ahmad, *Arabic Classical Accounts of India and China*, (Shimla, 1989), pp. 34 and 38.
26. *Hudud al Alam*, trn. V. Minorsky, (London, 1937), pp. 52 and 179, also see B.N. Mukherjee, *op. cit.*, *Desh*, p. 28.
27. In the first half of the seventh century Hsüan Tsang visited San-mo-ta-ta (*Samataṭa*), an area contiguous to Harikela. Samataṭa was known at that time to have contacts with several areas in South-east Asia. During the last quarter of the seventh century I-tsing reported about the voyage to Ho-lai-ka-lo (i.e. Harikela) from Sri Lanka. See B.N. Mukherjee, 'Commerce and Money in the Central and Western Sectors of Eastern India (750-1200)', *IMB*, Vol. XVII, 1982, pp. 65-83.
28. The earliest reference to Samandar figures in the *Al-Masalito Wa'l-Manalik* by Ibn Khurdadhbih, trn. by S. Maqbul Ahmad, *op. cit.*, p. 5. Also see, B.N. Mukherjee, *op. cit.*, *IMB*. Arab chroniclers leave little room for doubt that Samandar maintained long-distance maritime contacts with Serendib (Sri Lanka), Kanja (Kanchipuram), and Uranshin (Orissa). Al Idrisi explicitly states that Samandar was situated on a *Khawr* or inlet/creek. See S.M.H. Nainar, *The Knowledge of India Possessed by Arab Geographers down to the 14th century A.D. with Special Reference to Southern India* (Madras, 1942), p. 89. Such a location must have facilitated anchorage at, entry into and exit from Samandar.
29. B.N.Mukherjee, *op. cit.*, *IMB*, Vol. XVII.
30. Trailokyachandra (*c.* A.D. 900-25), an early ruler of the Chandra dynasty, is described as 'the support of Fortune goddesses the umbrella of which was the royal insignia of the king of Harikela' (*Ādhāro Harikela-rāja-kakuda-chchhatramitānāṁ Śrīyam*), *IB*, pp. 4. and 7.
31. D.C. Sircar, *Pāl-Sen Yuger Vaṁśānucarit*, pp. 106-08.
32. *Vaṅgāstu Harikeliyāḥ*, quoted in R.C. Majumder (ed.), *History of Bengal*, I (Reprint, Dacca, 1976), p. 15, fn. 9.
33. For a general account of the Bay of Bengal see Ashin Dasgupta, *Vaṅgopasāgara* (in Bengali) (Calcutta , 1989) and Auguste Toussaint, *History of the Indian Ocean* (London, 1966).
34. R.G. Basak, *op. cit.*, pp. 55-56.
35. *Ibid.*, pp. 55-56.

36. *Ibid.*, p. 56.
37. *Ibid.*, p. 55.
38. The *Lekhapaddhati* in and around the 13th century enlists thirty-two *karaṇas* or administrative departments, one of them being *śreṇi-karaṇa*, i.e. the department concerning (in other words, supervising over) guilds. Officers of this *karaṇa* may have functioned in a way similar to the *gochchhakapati* or *goshṭhakapati.*
39. See B.N. Mukherjee, *op. cit.*, *IMB*, XVII, for information regarding crafts and commerce of this period.
40. For a general overview of the archaeological discoveries at Sabhar vide Dilip K. Chakrabarti, *Ancient Bangladesh, a study of the Archaeological Sources* (Delhi, 1992), pp. 138-41.
41. *Ibid.*, p. 138.
42. Nalinikanta Bhattasali, 'The Ghughrahati copper-plate inscription of Samacharadeva', *EI*, XVIII, 1925-26, pp. 74-86; identification is suggested in p. 85.
43. D.C. Sircar, *Pāl-pūrva Yuger Vaṁśānucharit* (Calcutta, 1985).
44. *SI*, I, pp. 363-67. In recent years the early subdivisions have been elevated to districts in Bangladesh.
45. See note no. 23.
46. *SI*.I, pp. 367-68, D.C. Sircar suggests that Nāgadeva was first a *Mahāpratīhāra* and then an *Uparika.*
47. *Ibid.*, p. 367, fn. 10, also p. 370.
48. *Ibid.*, p. 369, fn. 8. The Faridpur copper-plate of Dharmāditya, regnal year 3 (*SI*, I, p. 366), speaks of *trighaṭṭikā*, "a locality having three *ghāṭs* (landing places)", which could have been used as parking stations for boats. The Gunaighar copper-plate of Vainyagupta (A.D. 507) mentions *nauyoga* denoting similar parking stations for boats and *naukhāta* or navigable ditch (*SI*, I, p. 344).
49. *Ibid.*, pp. 366-367.
50. *Ibid.*, p. 368.
51. Pargiter's views have been stated in *ibid.*, p. 368, fn. 1.
52. The rulers of Vaṅga in the sixth century appear to have been aware of the commercial importance of Navyāvakaśikā and hence placed important officers there to look after trade. The most impressive list of officers of this time is found in the Mallasarul copper plate of Gopachandra, year 33, (*SI*, I, pp. 372-77). See note no. 42 for Bhattasali's identification of Navyāvakāśikā with Sabhar. Dilip K. Chakrabarti, *op. cit.*, p. 141, states on the basis of Mustafizur Rahman's excavations at Sabhar that 'although the earliest date of occupation at the site is uncertain there is no reason why it cannot be put in the 6th or 5th century A.D.' This chronology has a close correspondence with the rule of independent Vaṅga kings in the sixth century A.D. when Navyāvakāśikā came to prominence.
53. *IB.*, p. 146, line 42.
54. *Ibid.*, p. 146, line 47.
55. N.G. Majumdar (*IB*, p. 5) reads the name of the *maṇḍala* as Nānya. But B.C. Sen, *Some Historical Aspects of the Inscriptions of Bengal* (Calcutta, 1942), p. 144, gives the alternative reading Nāvyamaṇḍala.
56. *SI*, II (Delhi, 1983), pp. 36-40, see particularly lines 2-3.
57. *Ibid.*, pp. 38-39, particularly lines 29-31 and 36-38; latter lines mention some *naudaṇḍakas.*
58. *Ibid.*, pp. 744-750, lines 29-42.
59. D.C. Sircar, *Epigraphical Discoveries in East Pakistan*, states that Devaparvata as a *jayaskandhāvāra* served as the capital of Devas and Chandras, if not of Rātas also.
60. *Ibid.*, for the text and commentary of the Paschimbhag C.P.
61. See note no. 10.
62. The last known definite epigraphic reference to Tāmralipta is found in the Dudhpani Inscription,

palaeographically assignable to the eighth century A.D., see *EI*, II, pp. 343-47.

63. In the present state of our knowledge of the economic history of the early medieval Bengal, it would be difficult to agree with R.S. Sharma (*Indian Feudalism*, Delhi, 1980) and his followers on the possibility of a sharp decline in trade and particularly long-distance trade in north India, including Bengal. An irrefutable evidence of the brisk trade in Samataṭa-Harikela area can be seen in the continuous minting of high quality silver coins of this zone, prevalent from the seventh to the thirteenth centuries. See B.N. Mukherjee, 'Place of Harikela Coinage in the Archaeology of Bangladesh', *Journal of the Varendra Research Museum*, VII, 1981-82, pp. 57-68. It is true that the Pāla-Sena domains did not witness any coinage issued by the Pāla and Sena families. The absence of a regular currency does not necessarily suggest a slump in trade, as other media of exchange (like cowrie-shell and dust currencies) played no mean a role in commercial transactions. For a detailed examination see, John S. Deyell, *Living Without Silver, the Monetary History of Early Medieval North India* (Delhi, 1990) and B.N. Mukherjee, *Media of Exchange in Early Medieval North India* (Delhi, 1992). Among the products of early medieval Bengal (both staple and luxury items), mention may be made of rice, sugar-cane, swords and the famous textile products. As these commodities figure often in Arab chronicles, they must have attracted attention of the Arabs because of their quality and/or quantity.
64. The importance of the hinterland and foreland vis-a-vis a port town is discussed by Franz Broeze (ed.), *op. cit.* Arab chroniclers inform us that Qamaruni aloe wood, in great demand in the 'West', was brought from Qamarun (= Kāmarūpa) to the port of Samandar by river. Similarly the fourteenth-century traveller Ibn Battuta undertook a riverine journey upstream from Sudkawan (= Chittagong) to Habang (Habiganj), vide B.N.Mukherjee, *IMB*, XVII.
65. Fernand Braudel's statement is in his celebrated *The Mediterranean and the Mediterranean World in the Age of Phillip II*, 2 vols, (London, 1972-73), p. 17.
66. Fernand Braudel, *The Structures of Everyday Life* (Volume I of *Civilization and Capitalism 1400-1800)*, (London, 1981), pp. 482-83.

38

Land-measurement and land-revenue system in Bengal under the Senas

Chitrarekha Gupta

I

Twelve copper-plate inscriptions of the Sena rulers have so far been found in different parts of Bengal. Since most of these charters were issued from Vikramapura in Vaṅga, D.C. Sircar suggested that it was the main capital of the Senas.[1] From their base at lower Bengal the Senas stretched their arms of power in other directions. This was in sharp contrast to the Guptas or the Pālas, who had their main stronghold, so far as Bengal was concerned, in north Bengal, as is suggested by the spatial distribution of their land-grant documents.

Of the twelve copper-plate inscriptions of the Senas nine refer to grants of lands situated within the Pauṇḍravardhana-*bhukti*,[2] which included by this time an extensive area of north and south Bengal. Only two inscriptions referred to grants of lands in the Vardhamāna-*bhukti*, including the Rāḍha area.[3] Kaṅkagrāma-*bhukti*, referred to in one inscription of the Senas, was created by parcelling out Uttara-Rāḍha from the Vardhamāna-*bhukti*.[4]

Of the nine inscriptions recording grants of lands situated within the Pauṇḍravardhana-*bhukti* two refer to lands in Varendrī, or north Bengal,[5] one in Vyāghrataṭi, a part of district Murshidabad[6] and two in the Khāḍi area of District South 24-Parganas.[7] Four inscriptions speak of grants of lands in the Vaṅga region.[8]

But it is worth notice that the Senas granted lands in Vaṅga only during their declining days. The Bhawal copper-plate inscription of Lakshmaṇasena was such a grant, which was issued in the 27th *saṁvat*, i.e. the last year of Lakshmaṇasena's reign and after the conquest of a part of Bengal by the Muslims.[9] Three other charters of this category were issued by Viśvarūpasena or his son Sūryasena, when the Senas were a dying force.

If we agree that legal documents reflect on the necessities of the time, and thus, a comparative study of such documents of different ages can focus on the socio-economic changes, the land-grant documents of the Sena period may be juxtaposed against those of the Pālas and the Guptas to reveal some social issues. The land-grant documents of the Senas, particularly those of their early days, were drafted very cautiously. Meticulous care was taken in referring to the particular measuring rod which was used in a particular land, the exact area of land given, and the precise boundaries of such a land. The Pāla records show indifference regarding such details. The Khalimpur copper-plate inscription of Dharmapāla recorded the boundaries of all the four donated villages.[10] But such details are lacking in other documents of the Pālas, where the boundary of the donated village was described by the stereotyped expression like *sva-sīmā triṇa-yūti-gochara-paryantāḥ*.[11] The Belwa copper-plate inscription of Mahīpāla I records the grant of three plots of lands situated in three different places. It became necessary to give an account of the area of land in each plot. But these have been given vaguely as *daśottara-śata-dvaya-pramāṇa* (210), etc.[12] Whether the standard refers to *kulyavāpa* or *droṇavāpa* or any other unit of land measurement is difficult to say. The Belwa and the Amgachhi copper-plate inscriptions of Vigrahapāla III give details of the areas of lands granted, but there also the boundaries of donated lands remain unspecified.[13] In none of these inscriptions is there any reference to the standard measuring rod.

The Sena copper-plate inscriptions also speak of the annual income of the donee from the land given to him. The Pāla records are almost silent in this regard. The Bangaon copper-plate inscription of Vigrahapāla III, referring to the grant of land in Tīrabhukti, recorded that the donated land yielded 500, without specifying the standard of the coin. Whether it referred to the annual or monthly income also had to be understood from the prevalent custom. Moreover, the record did not specify the area of land giving the yield.[14]

So, the unprecedented precision regarding land-measurements and land-revenue in the land-grant documents of the Senas draws our attention. It is not unlikely that the discontentment of the Pāla period vented in the so-called 'Kaivarta-revolt'[15] made the Senas alert about the proper working of their settlement and revenue offices. That this suggestion may have more weight than a mere guesswork is supported by two other additional epigraphic evidence. First, the earliest land-grant document of the Senas was issued in the 62 regnal year of Vijayasena,[16] whose endeavour to put in order the settlement department, which must have been in a mess, can be understood from his introduction of the *Vṛishabha-śaṅkara-nala*. Secondly, the early Sena rulers were chary of making extensive grants of lands. Vijayasena and Ballālasena issued only one charter each and those also recorded gifts by Vilāsadevī, the wife of Vijayasena, possibly out of her own fief.[17]

The land-grant records of the Sena rulers can be utilised to study the method of land-administration in different zones of Bengal under one particular dynasty. When these documents are studied as historical continuum of an earlier process, these would throw light on different aspects of land-administration in Bengal.

II

Varendra in the Sena period denoted the region which during the time of the Guptas was included within the Puṇḍravardhana-*bhukti*. It comprised the Rajshahi, Bogra and

Dinajpur districts of undivided Bengal. The Tarpandighi copper-plate inscription of Lakshmaṇasena, while recording the grant of land in the Velahishṭi village of Varendrī, states that the land granted was measured by the standard measuring rod of that locality—*tatratya-deśa-vyavahāra-nalena.*[18] The Madhainagar copper-plate inscription of the same king also records the grant of land in Varendrī, but the charter is silent about the rod of measure.[19] So, it is difficult to say what was the standard rod of land-measurement in north Bengal under the Senas.

During the Gupta period the *ashṭa-navaka-nala* was used in that part of Bengal.[20] The exact meaning of the expression is as yet unknown. F.E. Pargiter suggested that the length was measured with a rod of 9 cubits while the breadth was measured with that of 8 cubits.[21] D.C. Sircar while suggesting that the unit of measurement might also have been 8 × 9 reed measuring rod, preferred the suggestion offered by Pargiter.[22]

In the Damodarpur copper-plate inscription of the time of Budhagupta (G.E. 162 = A.D. 482) the term has been given as *ashṭaka-navaka-navaka-nala*. D.C. Sircar considered it to be a mistake for *ashṭa-navaka-nala* of other inscriptions.[23] But he was not quite sure. The relevant portion of the inscription reads:

(line 9) *khila-kshetrasya kulyavāpamekamasya Vāyigrāmokattara-pārśvasyaiva cha satya-maryyādāyā dakshiṇa-paśchima-pūrvveṇa.*

(line 10) *mahattarādyadhikaraṇa-kuṭumbibhiḥ pratyavekshāshṭaka-navaka-navaka-nalābhyāmapaviñchchhya chatussīmā ulliṅgya cha Nāgadevasya*

(line 11) [*dattaṁ*].[24]

D.C. Sircar suggested that the expression *ashṭa-navaka-navaka-nala* may be 'related respectively to *dakshiṇa*, *paśchima* and *pūrvva* of line 9.'[25] This inscription, in that case, gives support to the hypothesis of Pargiter. Morrison, however, is in favour of taking the expression *ashṭa-navaka-nala* to mean 'eight lengths of the nine-fold *nala.*'[26]

The Baigram copper-plate inscription of 128 G.E. (= A.D. 448) has the expression, in a similar context, '*Darvvi-karmma-hastenāshṭaka-navaka-nalābhyāṁ apaviñchachhya* . . .'[27] The same expression has been found in the Nandapur copper-plate inscription of 169 G.E. or A.D. 449.[28] These indicate that at least in the eastern part of the Gupta empire, comprising north Bengal and east Bihar, the same standard rod was used in measuring land. While trying to explain the meaning of the line D.C. Sircar suggested that since the expression *dūtakarma* referred to the *dūta*, *darvvikarmma* might have been 'the technical designation of the person who measured the area.'[29]

The Faridpur copper-plate inscriptions of Dharmāditya and Gopachandra suggest that in Vaṅga region also the same *ashṭa-navaka-nala* was in use and the *nala* itself was measured by the *hasta* of some honest official of the settlement department, as in these records we hear of one *dharmaśīla* Śivachandra, whose hand (forearm) was used for the aforesaid purpose.[30] The custom of calculating the length of the measuring rod by the hand of some person, who possessed a standard cubit length, was widely prevalent in different parts of India during the ancient period,[31] and the custom seems to have had a continuous history.

The measurement of *hasta* varies from 18 to 21 inches. Assuming the length of a *hasta* to be 20 inches Morrison argued that the *ashṭa-navaka-nala* would mean a rod of 120 feet (20″ × 8 = 160″; 160″ × 9 = 1440″ = 120′).[32] But we cannot be sure on this point because, as we have already noted, scholars are not unanimous about the meaning of the expression *ashṭa-navaka-nala*. The absence of any reference to the *nala* in the whole arena of land-grant documents of the Pāla period makes it difficult for us to throw any further light on this problem. And, it is also impossible to say whether or not the same unit of *nala* measurement was prevalent in Varendrī even during the Sena period.

In this connection mention should also be made of the Paharpur copper-plate inscription of G.E. 159 (=A.D. 479). Here, too, the donated land was situated in north Bengal, but in that locality a different type of *nala* was used, called *shaṭka-naḍa* in that land-sale document.[33] But here also scholars are not definite about the meaning of the expression. D.C. Sircar suggested that it referred to a measuring rod which was 6 cubit long, and not possibly to a unit of land measuring 6 × 6 reeds.[34]

Thus, this Paharpur inscription aggravates the problem further by suggesting that though normally the *ashṭaka-navaka-nala* was prevalent in Aṅga, Puṇḍra and perhaps also in the Vaṅga region during the Gupta period, it was not the only *nala* by which all lands were measured. It is possible that in taking *ashṭaka-navaka-nala* as the standard measuring rod attempts were made to solve various problems of land in accordance with the geo-physical aspects of the same in each locality. So, the expression *tatratya-deśa-vyavahāra-nala* found in the Sena inscription can only suggest the regional characters of the measuring rods.

That land in each locality was measured by customary local measures becomes evident also from other land-grant documents of the Sena period. The Barrackpur copper-plate inscription of Vijayasena records the grant of land in the Ghāsa-sambhoga-bhāṭṭabaḍā village of the Khāḍi-*vishaya*. There the *Samataṭīya-nala* was used for measuring the land.[35] The Khāḍi-*vishaya* seems to have included the modern district of South 24-Parganas and the Samataṭa country comprised Comilla-Noakhali and plain Tippera. There is no reference to the Khāḍi-*vishaya* in any record of the pre-Sena period. But the region may have been included within the dominion of the Chandras who started their career from Chandradvīpa or modern Bakla-Chandradvip of the Bakharganj (Barisal) district and extended their sway over Samataṭa and Harikela regions. During the time of the Chandras the *Samataṭīya-nala* might have been used in the deltaic parts of Bengal.

The measurement of the *Samataṭīya-nala* perhaps can be obtained from the Sundarban copper-plate inscription of Lakshmaṇasena which records the grant of land in a village of Khāḍi-*maṇḍala*. This record, instead of giving the name of the *nala* by which the land was measured, mentions the cubit measurement, most probably, of the *Samataṭīya-nala*, which was used in the Khāḍi area according to the Barrackpur copper-plate inscription of Vijayasena. According to this inscription, 12 *Āṅgulas* are equal to 1 *Hasta* and 32 *Hastas* are equivalent to 1 *Unmāna*.[36]

Unmāna, as we shall see below, was a unit of land-measurement which was used in various parts of the Sena dominion. Thus, this inscription suggests that the measurement of the *Samataṭīya-nala* might have been of 32 cubit length.

As we have assumed, the same *Samataṭīya-nala* might have been in use in the deltaic Vaṅga region, intervening between Samataṭa and Khāḍi. The Bhawal copper-plate inscription of Lakshmaṇasena, recording grant of lands in the Vaṅga area, referred to the *nala* used in that part of the Sena dominion. Randle was not sure about his reading of that portion which he read as *dvāviṁśati-hastena* . . .[37] Can we suggest on the basis of the Sundarban copper-plate inscription that it was a mistaken reading for *dvātriṁśati-hastena*? Unfortunately, though we have three more inscriptions of the Sena period referring to land-grants in Vaṅga we have no opportunity of verifying the reading of Randle because none of these records mentions the measuring rod.

While in the Khāḍi region, i.e. the eastern part of the Bhagirathi, the *Samataṭīya-nala* of 32 cubit length was in use for measuring the land, in the western part of Khāḍi, lying to the west of the Bhagirathi and forming part of the Vardhamāna-*bhukti*, a different unit of measuring rod was in vogue. In his second regnal year by the Govindapur copper-plate inscription, Lakshmaṇasena granted some lands in the Viḍḍaraśāsana of the Vetaḍḍa-*chaturaka*, which was in the Paśchima-khāṭikā region and was included within the Vardhamāna-*bhukti*. Vetaḍḍa-*chaturaka* has been identified with modern Betad in District Howrah.[38] There the land was measured by a *nala* consisting of 56 cubits.[39]

In some other parts of the same Vardhamāna-*bhukti* the *Vṛishabha-śaṅkara-nala* was in vogue. The Naihati copper-plate inscription of Ballālasena recorded the grant of land, in the Uttara-Rāḍha region of the aforesaid *bhukti*, which was measured by the *Vṛishabha-śaṅkara-nala*.[40] When Uttara-Rāḍha became part of the Kaṅkagrāma-*bhukti* during the reign of Lakshmaṇasena then also the same unit of *nala* continued to be used there.[41] The river Ajay in the south and the Bhagirathi in the east demarcated the area known as Uttara-Rāḍha and it must have included Birbhum and parts of Murshidabad districts.

It is tempting to equate the *Vṛishabha-śaṅkara-nala* used in the Uttara-Rāḍha area of the Vardhamāna-*bhukti* with the *nala* of 56 cubits used in the Vetaḍḍa-*chaturaka* of the Vardhamāna-*bhukti*, but nothing can be said definitely.

In the Bāgḍi region also the *Vṛishabha-śaṅkara-nala* was used. The Anulia copper-plate inscription of Lakshmaṇasena mentions that the said *nala* was used in measuring the land in the Mātharaṇḍiya village of Vyāghrataṭī, which, however, was included within the Puṇḍravardhana-*bhukti*. Vyāghrataṭī-*maṇḍala* was an important region even during the time of the Pālas[42] and seems to have included the Bāgḍi area of Districts Murshidabad and Nadia.

An overview of the above discussion suggests that different types of *nalas* were used for measuring lands in different parts of the Sena dominion. Even in the same *bhukti* one standard unit of *nala* might not have been in use. In the Varendrī area of the Pauṇḍravardhana-*bhukti* some unspecified *nala* was used which seems to have been different from the *Vṛishabha-śaṅkara-nala*, that was in use in the Vyāghrataṭī area of the same *bhukti*. In the Khāḍi area of the same Pauṇḍravardhana-*bhukti* the *Samataṭīya-nala* was the standard measuring rod, which, in all probability, was equal to 32 cubits, if that did not refer to a separate unit of measuring rod prevalent in some other parts of the same Khāḍi area. In the Vaṅga region of the Pauṇḍravardhana-*bhukti* the *Samataṭīya-nala* might have been in use, but in the absence of any evidence the suggestion may at best be a plausible one. If we do not agree with the equation of the *Vṛishabha-śaṅkara-nala* and the *nala* of 56 cubits prevalent in Uttara-Rāḍha and Paśchima-Khāṭikā respectively then we shall have to assume that in the *Vardhamāna-bhukti* also two different units of *nala* were in use.

But one thing is worth consideration. The *ashṭaka-navaka-nala* which was used during the Gupta and immediate post-Gupta days in Puṇḍra and Vaṅga regions was discontinued, unless we take the unspecified measuring rod of Varendrī to be the same as the old one.

III

When we study the units of land-measurement of the Sena period we notice that *Kulyavāpa*, which was the standard unit of land-measurement in north Bengal during the Gupta rule, and in Vaṅga in the immediate post-Gupta days,[43] finds no mention in any of the Sena land-grant documents. But the Belwa copper-plate inscription of Vigrahapāla III shows that *Kulyavāpa* remained as a unit of land measurement in north Bengal during the Pāla period also.[44] So, it may be assumed that though we have not received any land-grant document of the Sena period referring to *Kulyavāpa* it might not have been discontinued altogether.

Though *Kulyavāpa* was the highest standard unit of land in the Puṇḍravardhana-*bhukti* and Vaṅga region during the 5th-6th centuries A.D., *Pāṭakā* was the highest standard of land-measurement during the same period in the Samataṭa region.[45]

The difference was due to the underdeveloped condition of the latter region. Since there was less scarcity of land in the Samataṭa region during the 6th century A.D., *Pāṭaka*, which was five times higher than *Kulyavāpa*, could be a common unit of land-measurement there.[46]

The Gupta inscriptions from north Bengal speak of only *Kulyavāpa* and *Droṇavāpa*. References to lower units of land measurement in later inscriptions suggest pressure on land when even smaller units had to be recognized.

On the basis of textual evidence, partly supplemented by epigraphic evidence, the following chart has been prepared by D.C. Sircar:[47]

1 *Pāṭaka* = 5 *Kulyavāpa*
1 *Kulyavāpa* = 8 *Droṇavāpa*
1 *Droṇavāpa* = 4 *Āḍhavāpa*

Scholars have discussed at length the derivative meanings of these terms and the actual amount of land in modern equation indicated by them. But the riddles have not yet been solved. We quote here a long passage by D.C. Sircar to indicate the gravity of the problem.

'The words *Kulyavāpa*, *Droṇavāpa* and *Āḍhavāpa* indicate the area of land that was required to sow seed grains of the weight respectively of one *kulya*, *droṇa* and *āḍhaka*. ... Both the systems of planting, seedlings and of sowing seeds are prevalent in Bengal, the first in some parts and the second in others, though in cetain localities like the Faridpur District, both the practices are followed. It is said that one maund of paddy seeds are required for 3 *Bighās* for sowing, while seedlings of the same weight of paddy require 10 *Bighās* for transplanting. Seedlings of one *Kulya* (12 maunds 32 seers or 16 maunds) of paddy would thus require 128 *Bighās* or 160 *Bighās* of land for planting. A *Kulyavāpa* would therefore appear to have been originally equal to 128 to 160 *Bighās*, a *Droṇavāpa* 16 to 20 *Bighās*, and an *Āḍhavāpa* 4 to 5 *Bighās*. If the original calculation was based on the system of sowing seeds and not of transplanting seedlings, the position would be: 1 *Kulyavāpa* = 38 to 48 *Bighās*, 1 *Droṇavāpa* = $4\frac{1}{2}$ to 6 *Bighās*; 1 *Āḍhavāpa* = $1\frac{1}{8}$ to $1\frac{1}{2}$ *Bighās*. The original meaning of the root *vāp*, 'to sow', seems to support the second alternative.'[48]

That Sircar's conclusion may not be correct can be shown by a reference to Hunter's *Statistical Account of Bengal*, to which Sircar himself has drawn our attention. Hunter's account showed that these ancient terms were used in their modified forms even during his time. For example, *Don* could easily be equated with the ancient *Droṇa*. Now, during Hunter's time the area of land denoted by *Don* varied from place to place. While in District Chittagong it was equal to 21 *Bighās*, in District Noakhali it was equal to 100 *Bighās* and to about 144 *Bighās* in the Shaistanagar Pargana. In certain areas of

District Mymensingh it was equal to about 17 *Bighās*, and in others to about 51 *Bighās*.[49] These lists speak more in favour of transplantation, which was originally the contention of Pargiter, though the area of *Kulyavāpa* measured by him was quite different.

Hunter noticed that the difference in measurement was due to differences in the *nala* and *hasta* of various places. Thus, the system does not appear to have changed much from the time of the Senas when, as we have seen above, various types of measuring rods were used in different parts of the country.

So, it would be futile to search for modern equivalents for ancient terms of land-measurement. But we should know the relative relationship of those ancient units of measurement and try to understand their socio-economic implications in the perspective of the area where the land under discussion was situated.

Let us start with *Pāṭaka*. The earliest epigraphic reference to *Pāṭaka* is found in the Gunaighar copper-plate inscription of Vainyagupta (188 G.E. = A.D. 507), which records the grant of eleven *Pāṭakas* of *Khila* land by *Mahārāja* Rūdradatta in favour of a Buddhist monastery. These lands were not in one compact area. These were scattered in five different plots. The distribution pattern was as follows:[50]

1st plot	7 *Pāṭakas* and	9 *Droṇas* of land
2nd plot		28 *Droṇas* of land
3rd plot		23 *Droṇas* of land
4th plot		30 *Droṇas* of land
5th plot	$1\frac{3}{4}$ *Pāṭakas*	....................of land

Therefore, the total amount of land given was $8\frac{3}{4}$ *Pāṭakas* and 90 *Droṇas* or 11 *Pāṭakas*. Thus, this epigraphic record showed that 40 *Droṇas* were equivalent to 1 *Pāṭaka*. It also showed that *Droṇa* was the standard unit of land-measurement and no other unit like *Kulyavāpa* intervened between *Droṇa* and *Pāṭaka*.

The inscriptions of the Rātas, Nāthas, Khaḍgas and the Devas show that, under their rule during the 7th-8th centuries A.D. in wide regions of Vaṅga, Samataṭa and Harikela, *Pāṭaka* unit of land-measurement[51] came to be used. Units of land-measurement lower than *Droṇa* are not found in any of their inscriptions also. Socio-economic conditions of these regions were changing. But its effect on land-measurement system was not yet pronounced.

Some changes might have taken palce in the settlement affairs of these regions during the 9th or the 10th century A.D. for which we have dearth of epigraphic record from this area. But the Paschimbhag copper-plate inscription of Śrīchandra (5th regnal year), which records the grant of land in the Śrīhaṭṭa-*maṇḍala* of the Pauṇḍravardhana-*bhukti*, gives a very important information in this regard. It records the grant of an extensive area included in three *vishayas* and comprising more than 400 *Pāṭakas* of land. But the standard of that *Pāṭaka* was not 40 *Droṇas* as it was during the time of Vainyagupta in the 6th century A.D. It was *Pāṭaka* of 10 *Droṇas*. While giving details of distribution of lands among the recipients the record started by saying that the teacher of the *Chāndra-vyākaraṇa* would get *daśadroṇika daśapāṭaka*, i.e. ten *Pāṭakas*, each measuring ten *Droṇas* only.[52] The same expression appears again in the charter while describing the fifty-two *Pāṭakas* of land of Indreśvara. When this change did take place cannot be ascertained. Moreover, it cannot be said definitely on the basis of epigraphic documents whether this system was introduced only in the Śrīhaṭṭa-*maṇḍala* or in Samataṭa and Vaṅga regions also.

Is it possible that when the Pālas extended their power in the Samataṭa region it became necessary for them to bring about a parity in land-measurements in their whole kingdom and that they were responsible for this change? By this change the ratio between a *Kulyavāpa* used in north Bengal and Bihar regions and a *Pāṭaka* used in the Deltaic Bengal and Sylhet became only $1 : 1\frac{1}{4}$, whereas originally it was 1 : 5.

We should remember that Samataṭa of the 9th-10th century A.D. was not the same as that of the earlier periods. Its development as a centre of mercantile activity with the facility of a port[53] is bound to affect the land-system of its hinterland area as well. The drastic reduction in the area of a *Pāṭaka* even in the Sylhet region is an indirect evidence of socio-economic change in that region during the period under discussion.[54]

The background for the use of *samataṭīya-nala* in the Khāḍi-*maṇḍala* of the Sena dominion and for the use of *Pāṭaka* instead of *Kulyavāpa* in the Sena inscriptions may possibly be found in these changed economic factors.

By the time of the Senas *Pāṭaka* as a unit of land-measurement came to be recognised, so far as epigraphic documents can suggest, in the Khāḍi and Vyāghrataṭī areas of the Pauṇḍravardhana-*bhukti* and in the Uttara-Rāḍha area of the Vardhamāna/Kaṅkagrāma-*bhukti*. But none of the inscriptions referring to land-grants in Varendra, Vaṅga and Paśchima-khāṭikā mention this unit of land. The Tarpandighi copper-plate inscription of Lakshmaṇasena records the grant of 120 *Āḍhavāpas* and 5 *Unmānas* of land in the village Velahishṭi of Varendrī.[55] 120 *Āḍhavāpas* meant 30 *Droṇavāpas* or 3 *Kulyavāpas* and 6 *Droṇavāpas* of land according to the old Gupta-system and 3 *Pāṭakas* according to the new system found in the Chandra inscription. But it appears that *Āḍhavāpa* was the most popular unit of land-measurement in that part of Varendrī. We shall see in a later section that the area where land was granted by the Tarpandighi copper-plate inscription of Lakshmaṇasena was infertile. The purchasing capacity of the people of that locality might have been low and that may explain the relative unpopularity of the higher units of land-measurement.

In Viḍḍāraśāsana of the Paśchima-khāṭikā area of the Vardhamāna-*bhukti* Lakshmaṇasena granted 60 *Droṇas* and 17 *Unmānas* of land.[56] The Govindapur inscription, referring to this grant, therefore, speaks of the popularity of *Droṇa* unit of land-measurement in that area. The Saktipur copper-plate inscription of Lakshmaṇasena suggests that in the Dakshiṇa-*vīthī* of Uttara-Rāḍha of the Kankagrāma-*bhukti*, though higher unit of land-measurement called *Pāṭaka* was known, *Droṇa* was the popular unit of land-measurement.[57] So the inscription speaks of *tripañchāśad-bhū-droṇa*, *uṇanavati-bhū-droṇa*, etc. That *Droṇa* became a very popular unit of land-measurement in Bengal is attested by Hunter's statistical account also.

By the Sundarban copper-plate inscription Lakshmaṇasena granted 3 *Droṇas*, 1 *Khāḍikā*, 23 *Unmānas* and $2\frac{1}{2}$ *Kākinīs* of land in the Khāḍī-*maṇḍala* of the Pauṇḍra-vardhana-*bhukti*.[58] This inscription shows that *Khāḍikā* like *Āḍhavāpa*, was a unit of land-measurement in between *Droṇa* and *Unmāna*, but the relationship between *Khāḍikā* and *Āḍhavāpa* cannot be determined.

The unit of land-measurement called *Khāḍikā* has been found in the Madhainagar copper-plate inscription of Lakshmaṇasena along with a higher unit of land-measurement, in connection with a grant in the Dāpaṇiyāpāṭaka on the Rāvaṇa lake in Varendrī. The higher unit was called *Khāḍī*.[59] *Khāḍī* (*correct form Khārī*) as a unit of measurement is known from the *Amarakosha*.[60] *Khāri* as a unit of land-measure is found in the Pandukeswar plates,[61] which speak of its prevalence in the Kumaun-Garhwal area during the 10th century A.D. *Khāḍī* was regarded as equal to 16 *Droṇas*.[62]

Now, the Madhainagar inscription records the grant of 100 *Khāḍīs* and 91 *Khāḍikās* of land.[63] Studying the Sundarban and the Madhainagar copper-plate inscriptions together it is now possible for us to say that while *Khāḍī* was a unit of measurement higher than *Droṇa*, *Khāḍikā* was lower to that.

Khāḍī
↑
Droṇa
↑
Khāḍikā
↑
Unmāna

Unmāna was popular as a unit of land-measurement in different parts of the Sena dominion. It has already been noted that the Sundarban copper-plate inscription of Lakshmaṇasena supplies the information that 1 *Unmāna* was equal to 32 *Hastas*. This unit of land-measurement was known during the Pāla period also. In the Amgachhi and Belwa copper-plate inscriptions of Vigrahapāla III the same unit has been referred to as *Udamāna*,[64] just as in the Vaṅgīya Sāhitya Parishat copper-plate inscription of Viśvarūpasena it is synonymous with *Udāna*.[65] D.C. Sircar said: 'The relation of Udamāna-Unmāna-Udāna and of its subdivision, the Kākinī, with the Āḍhavāpa is difficult to determine.[66] But Monier-Williams mentions on the authority of Taranatha Tarkavachaspati's Dictionary that *Udamāna* was the 50th part of an *Āḍhavāpa*.[67] Thus 50 *Unmānas* are equal to 1 *Āḍhavāpa.*

Nihar-ranjan Ray depending on some other local evidence came to the same conclusion and he also cited the relationship between *Unmāna* and its subdivision *Kākinī*. The table is as follows:

4 *Āḍi* (or *Āḍhavāpa*) = 1 *Don* (or *Droṇa*)
50 *Uyān* (or *Udāna*) = 1 *Āḍi* (or *Āḍhavāpa*)
4 *Kān* (or *Kākinī/Kāka*) = 1 *Uyān* (or *Udāna/Unmāna*)
16 *Chhes* (?) = 1 *Kān* (or *Kākinī*).[68]

In summing up this section it can be said that almost all the units of land-measurement found in the copper-plate inscriptions of the Sena period can be put in their tabular order except *Yashṭi*, and *Sūtra* which appear in the Bhawal or the India Office copper-plate of Lakshmaṇasena, according to the reading given by Randle.[69] D.C. Sircar, however, has written that the area given in that record was 1 *Droṇa* 1 *Āḍha* 28 *Gaṇḍās* minus 1 *Kāka*.[70] The tabular order of the units found in the Sena records comes like this:

Pāṭaka (originally 40 *droṇas*)
|
Khāḍi (16 *droṇas*)
|
Kulyavāpa (8 *droṇas*)
|
Droṇa (4 *āḍhavāpas*)
|
Āḍhavāpa (50 *unmāna*)
|
Unmāna (4 *kākanī*)
|
Kākanī

Khāḍikā cannot be placed within this table, though we know it was lower than *Droṇa* but higher than *Unmāna.*

IV

Detailed informations regarding the *nalas*, units of land-measurement and standard units of land prevailing in different parts of a kingdom are preconditions for the efficient working of the revenue-administration in all ages. Kauṭilya's *Arthaśāstra* provided the model for revenue-administration during the ancient period.[71] But the epigraphic documents at our disposal do not give much direct evidence regarding revenue-system and as such many ambiguities still exist and it becomes difficult to analyse the evolutionary stages of revenue-administration.

So far as Bengal is concerned the Mahasthan inscription of the Maurya period suggests that the royal granary and treasury received, obviously in the form of taxes, paddy and other crops, and also coins like Gaṇḍaka and Kākanika.[72] On the basis of Kauṭilya it is assumed that $\frac{1}{6}$th of the produce was king's share as revenue, though recommendations for different rates for different classes of soil could also be found in his book.[73] The Rummindei Pillar inscription indicates that the king had power to decrease or to remit any type of tax.[74]

The Gupta and immediate post-Gupta inscriptions from Bengal refer to three types of lands—*Vāstu-kshetra*, (homestead land), *Vāpa-kshetra* (cultivated land) and *Khila-kshetra* (fallow land). The *Khila-kshetra* did not earn any revenue for the royal exchequer. Such lands were often purchased at low prices by moneyed men for making religious grants. Since these lands belonged to the king, the royal treasury received the money from such land-sales and the king received one-sixth of the religious merit of such gifts. From such indirect evidence it is suggested that the Maurya model of $\frac{1}{6}$th of the produce was retained as the normal land-revenue from *Vāpa-kshetra* or cultivable land even during the Gupta period.[75]

But whether the tax was assessed on gross or net production cannot be said definitely. Similarly, whether or not the tax was levied by means of simple appraisement or by actual division of the produce remains undetermined.[76]

Though the Pāla copper-plate inscriptions throw very meagre light on the revenue-administration under them, we can assume that after the period of *mātsyanyāya* it was not very easy for the early Pāla rulers to put the revenue-administration in proper order. Various intermediary interests in lands had grown up by this time and direct contact between the king and his tenant must have been hampered by their growth.

Vijayasena, after becoming the king, made an endeavour to organise the revenue office. The varied systems prevalent in various parts even of the same *bhukti* made the task of standardizing measuring rods and measuring units difficult for him. The *Vṛishabha-śaṅkara-nala* introduced by him could be used only in Uttara-Rāḍha of Vardhamāna/Kaṅkagrāma-*bhukti* and Vyaghrataṭī of Pauṇḍravardhana-*bhukti*, where the units of measurements were also standardized as *Pāṭaka, Droṇa, Āḍha, Unmāna* and *Kākani*. Such standardized forms could not be introduced everywhere. But that Vijayasena or any other ruler of his dynasty did not make any attempt to change the basic pattern of revenue-administration coming down from the time at least of the later Pālas can be shown by the similarity of assessment-system under the two dynasties, as revealed by the late-Pāla and early-Sena copper-plate inscriptions.

The Bangaon copper-plate inscription of Vigrahapāla III records the grant of a plot of land in favour of a donee. The land yielded 500, referring perhaps to the annual income from the produce of that land, expressed in terms of the prevalent coin-type, i.e. the *Purāṇa*.[77] In spite of the lack of precision this record links up the revenue-system of the Senas with that of the later Pālas. Vijayasena's Barrackpur copper-plate inscription also recorded, that the donated land, of which details are given, yielded 200 *Kapardakapurāṇas* per annum and that it was now given to the donee as a rent-free holding, leaving him in the sole enjoyment of its earning.[78] From a reference to the official called *Shashṭhādhikṛita* in the Khalimpur copper-plate inscription of Dharmapāla it is assumed that as in the Gupta period, one-sixth of the produce was regarded as the king's share of grains.[79] But no other Pāla record makes mention of this important officer. So it is difficult to determine what was the standard rate of assessment on production after Dharmapāla. It is likely that the system of assessment remained the same during the late-Pāla and the early Sena periods. We have, however, no evidence to determine what was the standard rate of assessement on production.

The Govindapur copper-plate inscription of Lakshmaṇasena recorded the grant of 60 *Droṇas* and 17 *Unmānas* of land in a village of Paśchima-Khāṭikā in the Vardhamāna-*bhukti*, with an annual yield of 900 *Purāṇas*. The record mentioned that the assessment was made at the rate of 15 *Purāṇas* per *Droṇa*.[80] But that this rate was not applied for assessment everywhere can be shown. For example, the Tarpandighi copper-plate inscription of the same region speaks of the grant of 120 *Āḍhavāpas* and 5 *Unmānas* of land in Velahishṭi village of Varendrī, which was within the Pauṇḍravardhana-*bhukti*.[81] 120 *Āḍhavāpas* can be equated with 30 *Droṇavāpas* according to the generally-accepted conversion-table. Now, according to the rate of assessment given in the aforesaid Govindapur inscription the annual yield from the donated land of Velahishṭi village should have been at least (30 *Droṇas* × 15) 450 *Kapardaka Purāṇas*. But the land yielded only 150 *Kapardaka Purāṇas* per annum. So, it appears that the land of a tenant was measured and the average production from it was also taken into consideration at the time of revenue-assessment.[82]

If the Govindapur inscription solves an important problem of revenue-assessment under the Senas, it also creates some problems on the same issue. According to the rate of assessment of 15 *Purāṇas* per *Droṇa* the yield of 60 *Droṇas* alone would have been 900 *Purāṇas*. What about the yield of the remaining 17 *Unmānas* of land?[83]

The Sena inscriptions suggest that for revenue-assessment unproductive waste lands, such as public paths or cattle-tracts were excluded, but homestead lands and both arable and fallow lands were brought under the revenue-scheme. When big plots of lands were donated the charters referred to *Vyāmiśra-bhūmi* to include *Vāstu* (homestead), *Nāla* (cultivated) and *Khila* (fallow), types of lands.[84] Similarly forest areas also get their inclusion in inscriptions in such expressions as *vana, jhāṭa, viṭapa* etc., and were granted to donees for their enjoyment, if such an area come within his rent-free holding.[85]

The revenue assessed on a specific plot of land seems to have been all inclusive, i.e. it was assessed not only on the production of paddy and other crops but also on yields from gardens and plantations. The Vaṅgīya Sāhitya Parishat copper-plate inscription of Viśvarūpasena provides valuable information in this respect. It refers to grants of lands in several areas of the Nāvya Division of Vaṅga. In one section it referred to $67\frac{3}{8}$ *Udānas* of land, the annual revenue income of which was $80\frac{5}{16}$ *Purāṇas*. While giving details of this area the record mentioned that the *Vāstu* portion of a plot measuring $4\frac{3}{4}$ *Udānas* fetched an annual revenue income at the rate of $1\frac{3}{8}$ *Purāṇas* per *Udāna* whereas *Nāla* or arable land of another plot, measuring 2 *Udānas* fetched an annual revenue income at the rate of $1\frac{1}{8}$ *Purāṇas* per *Udāna*.[86] In another section reference had been made to 10 *Udānas* of land which fetched an annual revenue income of 25 *Purāṇas*. Of these 10 *Udānas* of land 7 *Udānas* were arable land and 3 *Udānas* were *Vāstu* land and included a betel-nut plantation.[87] Similarly, 7 *Udānas* of land were granted which lay in the Deulhasti village. It included 3 *Udānas* of *Nāla* land and 4 *Udānas* of *Vāstu* land with betel-nut plantation. The annual yield from these 7 *Udānas* of land was 50 *Purāṇas*.[88] D.C. Sircar suggested that possession of betel-nut plantations etc. 'was a monopoly of the kings, *jagīrdārs* and privileged tenants.'[89] But Section VI of the grant portion of the aforesaid inscription makes the suggestion untenable, because Halāyudha is found to purchase 10 *Udānas* of land, including the betel-nut plantation, from Brahma and Amṛitoka, who, from the absence of any honorific titles added to their names, do not appear to have belonged to any of the category referred to by Sircar.[90]

Specific references to income from *Barajas, Guvāka-Kalanas* etc. indicate that cultivable lands were distinguished from gardens and plantations and were recorded separately in the revenue rolls. The Vaṅgīya Sāhitya Parishat inscription, for example, records that in the donated village called Rāmasiddhipāṭaka there were four new and three old betel-vine plantations which were now granted to the donee Halāyudhadevaśarman. These seven units of betel-vine plantations in two plots yielded an annual income of $19\frac{11}{16}$ *Purāṇas*.[91] In another section the charter records the grant of a betel-nut plantation, possibly containing 3000 betel-nut trees, the annual revenue yield from which was 40 *Purāṇas*.[92] Such detailed information about plantations indicate their importance in the contemporary economy, for which they could not be ignored by the revenue officers. In fact, localization of betel-vine growers in some localities gave rise to place names like Vārayīpāḍā, as is found in the Madanapada copper-plate inscription of Viśvarūpasena.[93] Reference to two areca-nut gardens within *Vāstu*-land is found in the Ashrafpur copper-plate inscription of Devakhaḍga also.[94] The mention of the *Dālimbakshetra* as the western boundary mark of the donated land of Vīḍḍāra-śāsana indicates the separate entity of gardens also in the revenue-rolls.[95]

The Sena inscriptions speak of three types of land-holdings—(1) revenue-paying holdings, (2) revenue-free holdings and (3) holdings paying revenue at a reduced rate. Revenue-free holdings included (i) lands granted to deities, (ii) lands granted to brāhmaṇas, (iii) lands granted to members of the royal family and (iv) lands granted to officials and other favourites of the king.

None of the charters of the Senas records grant of land in favour of any deity or religious institution. But that there were such lands during the Sena period can be known from the boundary descriptions of the donated villages. To the east of the $34\frac{3}{4}$ *Udānas* of land granted in the village Rāmasiddhipāṭaka lay the land of a god, *deva-bhoga*, at Devahāra.[96] A large area of land was in the possession of the Kandarpaśaṅkara-*āśrama*, referred to in the Madanapada copper-plate inscription of Viśvarūpasena.[97]

The Vaṅgīya Sāhitya Parishat copper-plate inscription of Viśvarūpasena raised an important question relating to rent-free lands granted to *brāhmaṇas*. *Āvallika-paṇḍita* Halāyudha purchased $12\frac{3}{4}$ *Udānas* of land from *rājapaṇḍita* Maheśvara. The land was originally a *śāsana* (or revenue-free holding). Its annual revenue income is said to have been 50 *Purāṇas*. Later on the land was granted to Halāyudha as a rent-free holding by the king.[98] This led D. C. Sircar to suggest that 'a revenue-free holding lost its special character on alienation and that its new owner had to pay the annual rent fixed for it unless the king again made it revenue-free.'[99]

The revenue-free lands belonging to the possessions of members of the royal family included lands, income of which was enjoyed by the king, and allotments made to queens and princes. The Vaṅgīya Sāhitya Parishat inscription records that a plot of land in the possession of tenants like Āranto, Kāmya, Piṇṭhanāga and others was sold to Halāyudha. This plot fetched an annual income of 50 *Purāṇas* and that was for *rāja-hita*, an expression translated by D. C. Sircar as 'the income of which is enjoyed by the king.'[100]

If Sircar's interpretation is accepted, revenues of such lands went to the private purse of the king. The tenants of such lands, however, were free to transfer their holdings even by sale.

The Barrackpore copper-plate inscription of Vijayasena and the Naihati copper-plate inscription of Ballālasena record grants of lands to *brāhmaṇas* as fees for conducting the *Tulāpurusha* and *Hemāśva mahādānas* respectively for Vilāsadevī, the wife of Vijayasena.[101] She was the princess of the Śura dynasty, possibly of south-west Bengal, referred to in the *Rāmacharita*.[102] Vilāsadevī might have granted these lands out of her own allotments. The Bhawal copper-plate inscription of the time of Lakshmaṇasena records the grant of land to increase the merits of two *mahādevīs*, one of whose name can be read as Kalyāṇadevī.[103] These queens might have been the actual donors. Viśvarūpasena's mother is found to make land-grants yielding an annual income of 250 *Purāṇas* on the occasion of a lunar eclipse.[104] This grant also might have been made out of her own allotments.

Similiarly, we hear of land-allotments in favour of princes like Sūryasena and Purushottamasena.[105] They enjoyed the revenues of these holdings, while the tenants in possession of those holdings, though paid the revenue to the respective land-holder, were free so far as their own plots of lands were concerned. Thus, for example, Halāyudha could purchase 10 *Udānas* of land from Brahma and Amṛitoka who were tenants of that land, the revenue income of which was enjoyed by prince Sūryasena.

Revenue incomes from certain lands were enjoyed by high officials. A section of the Vaṅgīya Sāhitya Parishat copper-plate inscription of Viśvarūpasena records that 7 *Udānas* of land were purchased by Halāyudha from Kāno and Amṛita. Later on *Sāndhivigrahika* Nāñisiṁha made a gift of that plot of land to Halāyudha. The king made it rent-free holding. D. C. Sircar suggested that the plot 'formed part of a *jagir* in the possession of Nāñisiṁha.'[106] It is not unlikely that Nāñisiṁha paid a lump sum amount in the royal exchequer to make the land given by him as a revenue-free holding.

The Madanapada copper-plate inscription of Viśvarūpasena records the grant of a plot of land situated in the Nāraṇḍapagrāma. Its annual revenue yield was 127 *Purāṇas* or *Chūrṇīs*. It was, at the time of the grant, in the possession of a dependant of the king, who obviously enjoyed the income referred to above.[107] This portion of the grant indicates that the king could sometime take off such revenue-free holding belonging to one for granting the same to another beneficiary. The old land-holder possibly was compensated with another plot of land.

The Tarapandighi copper-plate inscription of Lakshmaṇasena, while describing the boundary of the donated land, said that to its east lay—*Buddha-vihārī-devatā-nikara-deya-āmmaṇa-bhūmyāḍhavāpa*.[108] When R. D. Banerji edited the charter he left the passage unexplained.[109] Later on N. G. Majumdar gave his own interpretation of the line. He translated the relevant portion as: '*aḍhavāpa* of rent-free plain land (?) belonging to the deity of the Buddhist monastery.'[110] He could not explain, the word *ammaṇa-bhūmi* and suggested that the reading intended was *māla-bhūmi*, meaning a table-land. But he missed a very important point related to revenue administration, i.e. the said land of the *vihāra* was *nikara-deya*, which in the light of the Bhaturiya inscription of Rājyapāla cannot be taken as 'rent-free' land.

The Bhaturiya inscription mentioned that Yaśodāsa, a very high official of Rājyapāla, built a Śiva temple and at his request the king granted the village Madhusrava to the said temple. But it was not a rent-free village. It might be called *nikara* village. A small amount of rent was fixed for such lands as a sort of concession to the donee. In the case of Madhusrava it was fixed at 100 *Purāṇas*.[111] D.C. Sircar said that though evidence of such *kara-śāsanas* were common in the adjoining province of Orissa, the

Bhaturiya inscription was the only document of its kind from Bengal.[112] But now we can perhaps say that the Tarpandighi copper-plate inscription shows that *nikara* lands existed even during the time of Lakshmaṇasena and that the Bhaturiya inscription is not the only example of *kara-śāsana* in Bengal. The *Āḍhavāpa* of *nikara* land of the Buddhist monastery mentioned in the Sena charter was related to the *āmmaṇa-bhūmi*, which N.G. Majumdar took for plain land. Can it be taken as a field fit for cultivating *āmana* or autumn rice?

In this connection mention may be made of the 165 *Udānas* of land granted by Viśvarūpasena to *Paṇḍita* Halāyudha. The land yielded an annual revenue of 100 *Purāṇas* only.[113] The unusually low amount of revenue led D.C. Sircar to suggest, on the basis of an expression in the relevant section, that due to some calamity many tenants of the neighbourhood had died and so a low revenue was levied on that locality.[114] Thus, it provides an example of other circumstance under which the king was compelled to levy tax at a lower rate than the normal one.

A critical analysis of the Sena copper-plate inscriptions suggests that revenue-administration started becoming slack from the time of Lakshmaṇasena. The precisions regarding *nalas*, units of measurements, boundaries and annual yields, which could be found in early records of the Senas were missing in the records of Viśvarūpasena.

Lakshmaṇasena granted as much as 6 *Pāṭakas* of land to the *āchārya* Kuvera without knowing that the said land had already been given to the Gayāla-*brāhmaṇa* Haridāsa by his father. After detection of the fault a new arrangement had to be made.[115] A similar incident happened again during the reign of Viśvarūpasena. A plot of land yielding 132 *Purāṇas* or *Chūrṇīs* was granted to a *brāhmaṇa*, named Viśvarūpa-devaśarman. But later on it was found that the plot of land belonged to the Kandarpaśaṅkara-*āśrama*. The donee was then compensated by another plot in exchange, which yielded 127 *Purāṇas* or *Chūrṇīs*.[116]

The Vaṅgīya Sāhitya Parishat copper-plate inscription of Viśvarūpasena hints at undue pressure made upon the royal exchequer by powerful persons of the state. The charter records grants of several plots of lands as revenue-free holdings in favour of *Paṇḍita* Halāyudha.[117] Some of those lands were given to him as gifts by important persons like the queen-mother, the princes or the *Sandhivigrahika*. But some of the plots were purchased by Halāyudha himself from several persons. These gifts and the purchases indicate that Halāyudha was a very rich *brāhmaṇa*. So by making his plots of lands revenue-free Viśvarūpasena only strengthened the hand of a solvent and influential *brāhmaṇa* landholder at the expense of the state.

To sum up, with the expansion of settlements in different areas of Bengal from about the 7th century A.D., under regional ruling authorities, local factors became prominent in agrarian administrative system. However, we do not get detailed account of these changes until we come to the Sena period. By the Sena period, several types of measuring rods were introduced in different regions. The Gupta system of *nala* became obsolete and new *nalas* had to be accepted for measuring lands in various areas. Due to intensive agricultural activities arable lands were in great demand. So not only higher units of land-measurements, but lower units also were taken notice of. The area of a *Pāṭaka* of the underdeveloped region had to be reduced with the changed economic pattern of the locality. Since instead of bigger plots many people now enjoyed smaller land-holdings *Kulyavāpa* and *Pāṭaka* were replaced by *Droṇavāpa* and *Āḍhavāpa* as the standard unit of land-measurement in various localities. All types of lands and land-products were taken in consideration for assessing revenue. Not only grains and cereals, but also cash crops like betel-vines and areca-nut plantations and fruit-gardens were included in revenue-rolls for assessments. The same was the case with forest area. Each plot of land was evaluated by its intrinsic value. Revenue assessed was commuted to its money value and thus the system was far in advance to the Gupta systems of payment in grains.

But the revenue-system was vitiated by the growth of various intermediaries between the king and the actual tiller of soil. Many of these intermediaries enjoyed revenue-rights over various plots of lands. This class included royal-blood relations, high officials and privileged *brāhmaṇas*.

When Vijayasena tried to organise the revenue-administration, it was really a Herculean task for him. His attempt evokes our praise, but the later Sena records show that his attempt did not achieve its desired fruit. The same old lack of precisions, detailed informations regarding donated lands and its revenue in the later Sena records make us to think that had there been no Muslim invasion the Sena power would have collapsed under certain other pressures.

Notes and references

1. D.C. Sircar, *Pāl-Sen-Yuger Vaṁśānucharit* (in Bengali) (Calcutta, 1982), p. 117.
2. These are: (i) Barrackpur copper-plate inscription of Vijayasena; (ii) Tarpandighi copper-plate inscription of Lakshmaṇasena; (iii) Anulia copper-plate inscription of Lakshmaṇasena; (iv) Sundarban copper-plate inscription of Lakshmaṇasena; (v) Bhawal copper-plate inscription of Lakshmaṇasena; (vi) Madhainagar copper-plate inscription of Lakshmaṇasena; (vii) Vaṅgīya Sāhitya Parishat copper-plate inscription of Viśvarūpasena; (viii) Madanapada copper-plate inscription of Viśvarūpasena; and (ix) Edilpur copper-plate inscription of Viśvarūpasena.
3. These are (i) Naihati copper-plate inscription of Ballālasena and (ii) Govindapur copper-plate inscription of Lakshmaṇasena.
4. Saktipur copper-plate inscription of Lakshmaṇasena.
5. Tarpandighi and Madhainagar inscriptions.

6. Anulia inscription.
7. Barrackpur and Sundarban inscriptions.
8. Bhawal, Vaṅgīya Sāhitya Parishat, Madanapada and Edilpur inscriptions.
9. *Epigraphia Indica* (abbreviated as *Ep. Ind.*), XXVI, pp. 1, ff; D.C. Sircar, *op. cit.*, p. 129.
10. *Ep. Ind.*, IV, p. 249.
11. D.C. Sircar, *Select Inscriptions bearing on Indian History and Civilization*, II (Delhi 1983), pp. 76 and 84.
12. *Ep. Ind.*, XXIX, p. 7.
13. *Ibid.*, p. 11; *ibid.*, XV, p. 297.
14. *Ibid.*, XXIX, p. 55.
15. During the reign period of Mahīpāla II, Divya, a high official of Kaivarta origin revolted and captured Varendra. But Rāmapāla succeeded in recapturing Varendra by defeating Bhīma, a successor of Divya. This, according to some scholars, was just a feudal revolt to seize the throne, while others take it as a peasants' revolt against the oppressive measures of the later Pāla rulers.
16. N.G. Majumdar, *Inscriptions of Bengal*, III (Rajshahi 1929), p. 64.
17. *Ibid.*, pp. 61 ff.; *ibid.*, pp. 71 ff.
18. *Ibid.*, p. 102.
19. *Ibid.*, pp. 109, ff.
20. D.C. Sircar, *Select Inscriptions bearing on Indian History and Culture*, I (Calcutta, 1965), pp. 288 and 358.
21. *Indian Antiquary*, XXXIX, pp. 215-216.
22. D.C. Sircar, *Select Inscriptions*, I, p. 334, note 2.
23. *Loc. cit.*, note 2.
24. *Loc. cit.*
25. *Loc. cit.*, note 2.
26. B.M. Morrison, *Political Centres and Cultural Regions in Early Bengal* (Tuscon, 1970), p. 87.
27. D.C. Sircar, *Select Inscriptions*, I, p. 358.
28. *Ep. Ind.*, XIII, p. 55.
29. *Select Inscriptions*, I, p. 358, note 6.
30. *Ibid.*, pp. 366, 369 and 371.
31. D.C. Sircar, *Indian Epigraphy* (Delhi, 1974), pp. 407-408.
32. B.M. Morrison, *op. cit.*, p. 88.
33. *Select Inscriptions*, I, p. 362.
34. *Loc. cit.*, note 6.
35. N.G. Majumdar, *op. cit.*, p. 63.
36. *Ibid.*, p. 171. D.C. Sircar while commenting on this portion of the inscription writes: 'In the *Dacca University History of Bengal*, the passages *dvādaś-āṅgul-ādhika-hastena* and *dvātriṁśad-dhasta-parimit-onmānena* have been taken to indicate a cubit of 12 *aṅgulas* or digits and an *unmāna* of 32 cubits respectively. But the first passage seems to refer to the cubit of 36 *aṅgulas* or 27 inches, and the second to the *nala* or measuring rod of 32 cubits of the above length,' in *Studies in the Political and Administrative Systems in Ancient and Medieval India* (Delhi, 1974), pp. 150 and 151.
37. *Ep. Ind.*, XXVI, pp. 8-9.
38. R.C. Majumdar (ed.), *History of Bengal*, I (Dacca 1943), p. 28.
39. N.G. Majumdar, *op. cit.*, p. 96.
40. *Ibid.*, p. 74.
41. *Ep. Ind.*, XXI, p. 218.
42. *Ibid.*, IV, p. 249; *ibid.*, XVII, p. 323.
43. *Select Inscriptions*, I, pp. 288, 334, 338, 362, 366, 371, etc.

44. *Ep. Ind.*, XXIX, p. 11.
45. *Select Inscriptions*, I, p. 342. In later period the word *pāṭaka* came to be used in the sense of a village also, e.g. Markaṭāsi-pāṭaka, Vatsanāgapāṭaka, Dārapāṭaka in the Ashrafpur copper-plate inscription no. 2 of Devakhaḍga.
46. Chitrarekha Gupta, '"Khila-Kṣetras" in Early Bengal Inscriptions', *N.K. Bhattasali Centenary Volume*, ed. Debala Mitra and Gauriswar Bhattacharya, (Delhi, 1989), pp. 276-278.
47. D.C. Sircar, *Indian Epigraphy* (Delhi, 1965), pp. 414-416; *idem*, *Select Inscriptions*, I, p. 288, note 9 and p. 342, note 4.
48. D.C. Sircar, *Indian Epigraphy*, pp. 412 and 414; *idem*, *Studies in the Political and Administrative Systems in Ancient and Medieval India*, p. 147.
49. *Idem*, *Indian Epigraphy*, pp. 411-12, note 5.
50. *Idem*, *Select Inscriptions*, I, pp. 343-345.
51. *Ibid.*, II, pp. 32-34, 39, 42, 749.
52. D.C. Sircar, *Epigraphic Discoveries in East Pakistan*, (Calcutta, 1973), p. 67.
53. B.N. Mukherjee, 'Harikela and related Coinage', *Journal of the Ancient Indian History*, X, 1976-77, pp. 166 ff.
54. Introduction of silver coins in Samataṭa region from about 7th/8th century A.D., establishment of *maṭhas* and educational institutions, etc. in the Tripura-Srihatta regions also speak of socio-economic changes of these regions.
55. N.G. Majumdar, *op. cit.*, p. 102.
56. *Ibid.*, p. 96.
57. *Ep. Ind.*, XXI, pp. 211 ff.
58. N.G. Majumdar, *op. cit.* p. 171. D.C. Sircar gave a different reading than that of N.G. Majumdar. After *unmānottara* Majumdar read *Khāḍikā*, while D.C. Sircar read *Āḍhavāpa*. Since the charter was soon lost after its discovery, neither Majumdar nor Sircar could study the original plate. Possibly Sircar took the reading *Khāḍikā* as mistaken reading for *Āḍhavāpa*. But since the expression *Khāḍikā* has been found in the Madhainagar copper-plate inscription also we have taken Majumdar's reading as correct. Cf. Sircar, *Indian Epigraphy*, p. 417.
59. *Ibid.*, p. 112, *Select Inscriptions*, II, p. 128.
60. *Amarakoṣa*, *Vaiśya Varga*, verse 10.
61. *Ep. Ind.*, XXXI, p. 295.
62. *Ibid.*, p. 292.
63. *Select Inscriptions*, II, p. 128; N.G. Majumdar, *op. cit.*, p. 112. D.C. Sircar took *Khāḍīs* and *Khāḍikās* as synonymous terms. But his suggestion does not appear to be correct.
64. *Ep. Ind.*, XV, p. 297; *ibid.*, XXIX, p. 11.
65. N.G. Majumdar, *op. cit.*, pp. 146-7.
66. D.C. Sircar, *Indian Epigraphy*, p. 416; *idem*, *Studies in the Political and Administrative Systems in Ancient and Medieval India*, p. 149.
67. Monier Monier-Williams, *A Sanskrit-English Dictionary*, New edition, Delhi, p. 183.
68. Nihar-ranjan Ray, *Bāṅgālīra Itihāsa* (in Bengali), pt. I, (3rd ed., Calcutta, 1980) p. 241.
69. *Ep. Ind.*, XXVI, pp. 8-9. Abhay Kant Choudhary says that these expressions suggest that land was also measured by sticks (*yashṭi*) and strings (*sūtra*). Cf. *Early Medieval Village in North Eastern India* (A.D. 600-1200) (Calcutta, 1971), p. 127.
70. D.C. Sircar, *Indian Epigraphy*, p. 418; *idem*, *Studies in the Political and Administrative Systems in Ancient and Medieval India*, p. 151. D.C. Sircar wrote: 'The reading of *gaṇḍā* in the passage is not beyond doubt; but it is difficult to suggest anything more probable' (*loc. cit.*). He thought that 'Gaṇḍā is no other than *Udamāṅa* = *Unmāna* = *Udāna*' (*ibid.*, p. 152 and *Indian Epigraphy*, p. 418). We find no justification in discarding the reading *Yashṭi*, in favour of *Gaṇḍā*, when that reading also is doubtful.

71. U.N. Ghoshal, *Contributions to the History of the Hindu Revenue System* (Calcutta 1929), p. 35.
72. D.C. Sircar, *Select Inscriptions*, I, p. 79-80.
73. *Arthaśāstra*, ed. R.P. Kangle, (Bombay 1969), II, 15.2; 11.35, V, 2.
74. *Select Inscriptions*, I, p. 67.
75. D.N. Jha, *Revenue System in Post Maurya and Gupta Times* (Calcutta, 1967), p. 42.
76. U.N. Ghoshal, *op. cit.*, p. 59.
77. *Ep. Ind.*, XXIX, p. 55.
78. N.G. Majumdar, *op. cit.*, p. 63.
79. *Select Inscriptions*, II, p. 68.
80. N.G. Majumdar, *op. cit.*, p. 96.
81. *Ibid.*, p. 102.
82. W.H. Moreland, *The Agrarian System of Moslem India* (First published in 1929; Reprint, Delhi 1988), p. 7.
83. Morrison suggested that the yield of an *unmāna* being a negligible amount it was ignored. See Morrison, *op. cit.*, p. 99.
84. D.C. Sircar, *Studies in the Political and Administrative Systems in Ancient and Medieval India*, p. 202.
85. N.G. Majumdar, *op. cit.*, pp. 63, 14, 87, 102 etc.
86. D.C. Sircar, *Studies in the Political and Administrative Systems. . . .*, p. 201.
87. *Ibid.*, p. 207.
88. *Loc. cit.*
89. *Ibid.*, p. 206.
90. *Ibid.*, p. 207.
91. *Ibid.*, p. 201.
92. *Ibid.*, p. 206, note 1.
93. *Ep. Ind.*, XXXIII, p. 324.
94. *Memoir of the Asiatic Society of Bengal*, I, p. 90.
95. N.G. Majumdar, *op. cit.*, p. 96.
96. D.C. Sircar, *Studies in the Political and Administrative Systems ...*, p. 201.
97. *Ibid.*, p. 220.
98. *Ibid.*, p. 208.
99. *Loc. cit.*
100. *Ibid.*, p. 206.
101. N.G. Majumdar, *op. cit.*, pp. 63 and 74.
102. D.C. Sircar, *Pāl-Sen-Yuger Vaṁśānucharit*, p. 118.
103. *Ep. Ind.*, XXVI, p. 9.
104. D.C. Sircar, *Studies in the Political and Administrative Systems ...*, p. 206.
105. *Ibid.*, pp. 207 and 208.
106. *Ibid.*, p. 207.
107. *Ep. Ind.*, XXXIII, p. 325.
108. N.G. Majumdar, *op. cit.*, p. 102.
109. *Ep. Ind.*, XII, p. 8.
110. N.G. Majumdar, *op. cit.*, p. 104, note 1.
111. *Ep. Ind.*, XXXIII, p. 154.
112. *Ibid.*, p. 153; D.C. Sircar, *Studies in the Political and Administrative Systems ...*, pp. 66-75.
113. D.C. Sircar, *Studies in the Political and Administrative Systems ...*, pp. 204-5.
114. *Ibid.*, p. 205 The expression is—*nānāpatyā-uchchhannatvāt.*
115. *Ep. Ind.*, XXI, p. 219.
116. *Ibid.*, XXXIII, pp. 324 and 325.
117. *Journal of the Asiatic Society, Letters*, XX, 1954, p. 201; D.C. Sircar, *Studies in the Political and Administrative Systems ...*, pp. 199-211.

39

Restoration of India's tallest Jaina statue

R. Sengupta

Introduction

It is rather unfortunate that the tallest (26 m.) rock-cut statue of India, locally called Bāwangajā ('52 cubits'), of the first Tīrthaṅkara, Ādinātha, remained so long unnoticed by scholars of Indology. Even in the publications brought out on the occasion of the 2500th anniversary of Mahāvira's *nirvāṇa*, there is a casual mention of this unique statue without mentioning its importance or date. Nestled in the folds of the Satpura hills (Pl. 39.1) and only 7 km. from Barwani (District Khargaon, Madhya Pradesh), a princely state till the British rule, the statue remained virtually unknown to art-lovers, though the site is not far from the famous Buddhist caves at Bagh on the north and Maheshwar, an ancient place of pilgrimage, on the north-east.

It is indeed difficult to fix any definite date of the statue without any reliable epigraphical or literary evidence. A publication in Hindi, *Madhyapradeśke Digambar Jaina Tīrtha*, nonetheless, discusses the available sources and concludes that although no date can be fixed with any certainty, on the basis of a mention of the statue in the work *Śāsanachaturstriṅgśikā*, its date may be prior to the 13th century A.D. On the other hand, the Hindi book makes a contradictory statement saying that the author of the above-mentioned old work, Yati Madanakīrti belonged to the 13th century A.D. and also was employed in the court of the Paramāra king of Malwa, Arjunavarman (A.D. 1153-1161). Madanakīrti had called it the statue of Bṛihad-deva made of one stone by King Arkakīrti at Ādi Nishadhikā in the city of Bṛihatpura. No reference is available of King Arkakīrti of the place Ādi Nishadhikā or of the city of Bṛihatpura of which the former is said to have been a part. The proposed date of *c.* 12th century A.D. attributed to the statue, therefore, lacks credibility. The protagonists of the earlier date argue that past repairs had effected changes, as a result of which the statue looks later. But the face remains unaltered, except for the marks of repaired cracks and does not interfere with the assessment of its age, *c.* 15th century A.D.

It must not be forgotten that political conditions in Malwa and Gwalior, between 12th and 15th centuries A.D., were unfavourable for openly undertaking religious activities by the Jainas, though Muslim rulers used them for maintaining their treasury and to carry out trade for them. Occasionally they were permitted to take out processions for pilgrimage. One such occasion was during the time of Ghiasuddin Tughlaq when

Jinakumār Surī led a procession to Satrunjaya, Girnar etc. in Gujarat. But such favours were exceptions and not bestowed on the Jainas as a rule by others. For fear of damage and desecration, images of Jaina deities had to be prepared in modest sizes which conveniently could be concealed. Similarly, the *bhāndārās* of religious texts and books were kept at inconspicuous places. Large statues could be made and worshipped openly in north and central India only when the Jainas felt free to do so. From A.D. 1400 onwards statues were carved on the cliff of Gwalior Fort (Pl. 39.2) varying in heights from 7 m. upwards; the tallest image was 18 m.; chiselled out in mid-15th century A.D. at Urwahi. Most of these statues are said to have been damaged subsequently by Babar.

In any case, the form of the Bāwangajā statue is stylistically dissimilar to those of the 12th century A.D. which are found at other centres of Jaina art in Madhya Pradesh (Pl. 39.3), Gujarat, Maharashtra and Rajasthan. The treatment of the face, the form of the developed *srīvatsa*-mark on the chest, the pronounced fold of the abdomen and the discs on the knees of the Bāwangajā (Pl. 39.4) are not to be seen on the sculptures of the 12th century A.D. and evidently are later developments. Even the statue called Naugajā (Pl. 39.5), at a lower level, with an inscription of the 14th century A.D. shows a superior workmanship of an earlier date. It may be noted that after the establishment of the temple at Chūlagiri in the 12th century A.D. the next spurt of activities were seen in the 14th century A.D. when many inscribed sculptures were donated. Thus, considering the artistic features of the statue of Bāwangajā, it appears that it would not be unreasonable to ascribe it to a time after the second revival of activities at the site, under 52 Saṅghapatis.

The number 52 appears to occupy a sacred position in Jaina cosmology. The monastic establishment at Bāwangajā is reported to have in it 52 Saṅghapatis, as also the height of the statue is 52 cubits. Fifty-two weeks make one year or one cycle of the earth's moving round the sun and so denote fullness or completeness. In the conception of forms of temple complexes, Bāvanna-Jinālaya or Bāwan-Jinālaya is considered as the most complete and a very satisfactory form of a Jaina temple-complex. In this form there are 17 Jinālayas on the sides, 9 at the back and 4 on either side of the front entrance; thus with the principal shrine in the centre, the total number of shrines in the complex comes to 52. Among the extant examples of such a temple-complex is the one called Luna-vasahi temple (A.D. 1231) at Dilwara, Mt. Abu, while the other one at Sarotra, also of the 13th century, in Gujarat has disappeared.

So with a definite purpose the height was fixed at 52 cubits (*gaja*) for the statue of the first Tīrthaṅkara who is to remain physically ever supreme and at the same time would symbolize spiritually the embodiment of fulfilment of human aspiration.

Past repairs

An epigraphical record mentions that the old temple at Chūlagiri hill erected in A.D. 1166 was restored in A.D. 1459 by Bhaṭṭāraka Ratnakīrti, the chief of the Gwalior

Saṅgha. Another inscription also informs of the restoration of the *sūtraśālā* at the same time, but none of the two inscriptions mentions about any restorations having been carried out to the rock-cut shrine of Ādinātha or Ṛishabhanātha.

In the repairs executed over five decades ago, the two side-galleries for the *abhisheka* and the tin-shed over them were added. The statue was then treated with a polish. That the statue had been repaired extensively can be made out from the discoloured marks on the body. It was reported that on the left side of the belly there had been a big cavity which was filled in by using reinforcement that was unnecessary. It was also reported of the statue being damaged by lightning which information, considering its sheltered location among higher hills, did not seem to be likely.

Most probably, after the disintegration and disappearance of the natural rock-roof of the shrine, there used to be occasional fall of boulders from the top and this had damaged the head and also the feet which were restored. Possibly the fall of portions of the disintegrated rock had caused damages to the feet. Similarly, the fall of boulders from the top had injured the head and ears and also caused development of cracks on the forehead, left eye and face.

The head and the ears were restored reproducing the original features like the curly hair-locks, ears etc. But the repairs to the forehead, left eye and face were done improperly so that the pigment mixed with the mortar, used for repairing, washed away and the repaired portions stood out prominently to cause distraction (Pl. 39.6). Similarly the mixed mortar used on the left leg was in a marked contrast with the colour of the rock-surface of the statue.

Apart from the colour of the mortar, the workmanship of mending the cracks was rather crude and did not match with the original surface of the stone of the statue. Obviously, the person engaged on the job did not have the necessary skill of modelling. Nor was he aware of the relative strength of materials used in the mortar; a strong mortar would not necessarily make a good mortar for a weathered, age-old or weak material, be it stone or brick. If the mortar for plaster was stronger than the object to be plastered, a bonding with the plastered surface would not be established and in the course of time the new material would get separated. This phenomenon was well demonstrated by the plastered feet and the leg below the left knee from where patches of plaster had been peeling off and at other places the repaired portions emitted an empty sound when struck, indicating a gap between the old and new surfaces. For this reason, conservators were required to select their mortar very carefully to maintain a balance between the strength of the original building materials to be treated and of the new materials to be applied.

Conservation measures suggested

The statue looked rather tarnished due to ill-advised application of oily matter, unrestricted pouring of liquids for *abhisheka* and seepage of rain-water through the seams of the volcanic rock.

Towards its preservation, therefore, the first step should be to control the pouring of liquids for *abhisheka*. If at all there was a demand for *abhisheka* from the devotees, the rite could be performed on a replica of the statue and the liquid disposed suitably. The two balconies above the shoulders of the statue and the framed arch in front, which distracted the view of the statue, should be dismantled and the two doors leading to the balconies closed for safety.

To stop oozing of rain-water through the body of the rock of the statue and decaying and disfiguring it, the rock behind the shrine should be grouted by drilling holes to form a curtain. In drilling the holes, a rotary drilling machine should be used to prevent any vibration to be caused in the otherwise weathered rock. The shrine of Ādinātha was scooped out of a volcanic rock, basalt of the Satpura range of hills. In the section of the rock of the statue of Bāwangajā may be read a number of flows of lava and in these flows 23 sheets are spread out horizontally. In the interspaces there are vertical joints and cavities of all sizes and shapes which permit seepage of rain-water. In respect of the Ajanta caves in the stratum of the rock of the Sahyadri range of hills in which the caves were scooped out, 36 sheets of lava could be made out. At Bāwangajā, though not all the seams permit seepage, quite a number of them have proved to be offensive. These seams being at different levels, from the breast to the ankles, drilling and grouting will have to be done to fill in the seams and to prevent seepage of water through them. To be effective, grouting may be done from the top of the rock to about two metres below the floor of the shrine and extended on both the sides up to the natural drains. After examining the rock, it may be decided if cement should be used for grouting or alternately a consolidant chemical would better suit the purpose of sealing off the seams in the rock. If the grout showed a tendency to run away, the liquid should be thickened or the viscocity of the consolidant chemical improvised to prevent from dispersing over a large area and allow to settle within a limited space to produce a barrier. Anyway, these matters of details should better be left to the specialists on grouting to decide upon.

Two surface-drains should be provided at two levels on the hillside at the top behind the shrine. The lower one could be sited behind the mound at the back of the shrine and extended on both the sides to release the water in the natural drains. The upper one should be wide enough and its outer wall sufficiently strong to collect the boulders which might fall from the top. As a precautionary measure, the loose boulders from the area above the shrine, should be removed or large ones secured in position to avert any fall in future.

As indicated above, the structure of the rock not being homogeneous and the exposed portions having been weathered, in the course of time the roof of the shrine had fallen and disappeared. Everywhere when sculptures of such magnitude were scooped out of the rock, niches were provided and the sculptures remained as part of the back wall and well protected under a roof. At Ajanta and Kanheri in the earlier period and later at Gwalior use of this method could be seen. At Bamiyan in Afghanistan where two sculptures of Buddha, 55 m. and 38 m. high, were scooped out of the conglomerate rock of the Hindukush mountain, such niches could be seen. In the case of Bāwangajā also the stumps of side-walls indicate that originally the statue had been sheltered with a roof on the shrine. With the disappearance of the roof the statue was exposed to the actions of weather and fall of boulders from the hill-top as the nature of repairs to the head and cracks on the face suggested. Subsequently, when the statue was repaired, the necessity of providing a roof was felt and one of tin-shed was put up.

To improve the look and expose the statue to full view without distractions, the modern additions should be removed and the shrine restored to its earlier form as far as possible. To achieve this, after removal of the balconies and the framed arch, replacement of the roof with one of reinforced cement concrete (RCC) simulating the rock could be considered. In doing so care should be taken to follow the sky-line and contour of the rock so that the new roof in RCC would form and look as part of the rock and does not stand out as an incongruous modern addition. In mass, shape, colour and texture the roof should merge with the surrounding rock. As part of the restoration work the modern arches of the gallery behind the statue should also be treated to modify the sharp edges and regular arched forms to look irregular and less precise. The two side-walls in masonry also needed to be trimmed and the ashlar facing substituted with one plastered surface to match with the rock around them. On the right side, a portion of the rock-surface was exposed at the top and provided the clue to the level to which the ashlar face should recede to make room for the simulated rock-surface. When the side-walls are treated in this manner, the look of the statue would improve to a great extent.

The statue needed to be cleaned and treated with a preservative chemical. The sequence of treatment should be: cleaning of the rock-surface of the statue of all the deposits and unseemly marks to expose the original texture, mending the damages and ugly patches of plaster applied earlier so as to lend the statue the look of a uniform surface. A skilled modeller should be able to mend the damages to match with the rock-surface in colour and texture. Thereafter, the statue should be treated with a preservative and the rock-surface made water repellant. The statue should be treated with preservative and with a water repellant before and after the ritual of *mastakābhisheka*.

To expose the statue to full view and to give it its due prominence, the objects which now cause distraction or hide the view from the steps below the modern structures in front, should be removed and the whitewash from the other structure taken off. The existing steps rise much above the ground. The steps may be re-aligned to ascend meanderingly from the left side and meet the platform in front of the statue. The steps may follow the lie of the ground as far as possible and for safety and protection railings of G.I. pipes may be provided. The floor of the platform in front of the statue should be lowered and if necessary extended; its front walls should be sloped and finished to look like the scarp of the rock.

With the removal of modern constructions which are obstructing the view, the whitewash removed and the steps re-aligned, the statue would be in full view from below. Some plantation of flowering trees would further enliven the surroundings. To preserve its serenity, no new construction should be permitted in the area in front of the shrine.

Conservation-works done and discussion

The restoration work has been successful in bringing about improvement to the site, especially with the removal of the obtrusive modern constructions erected in front and reconditioning the platform (Pl. 39.7) to accommodate greater number of pilgrims for congregations. The statue has been restored to replace the battered and the incongruously-repaired look with an improved one. The buttress-walls at the sides and the roof were not treated as envisaged earlier.

Restoration of damaged ancient statues in stone is rather a complicated operation, more so if it is a volcanic rock as at Bāwangajā and in western India. The international community of scientists working on the problem of preservation is yet to find a satisfactory solution. The personnel to be engaged on the job, therefore, must be proficient in the execution of the job and committed to the cause of preservation. The means and methods to be used should ensure a prolonged life of the objects to be preserved by halting the process of decay without altering anyway its look, character, colour, texture, volume etc. In India restorers have used tinted cement-sand mortar to repair rock-cut shrines at Ajanta, Ellora, Elephanta etc. and even after four decades no alteration in the treated portions has been noticed. But at Bāwangajā as the Samiti was against the use of cement mortar it was not used in the restoration of the statue.

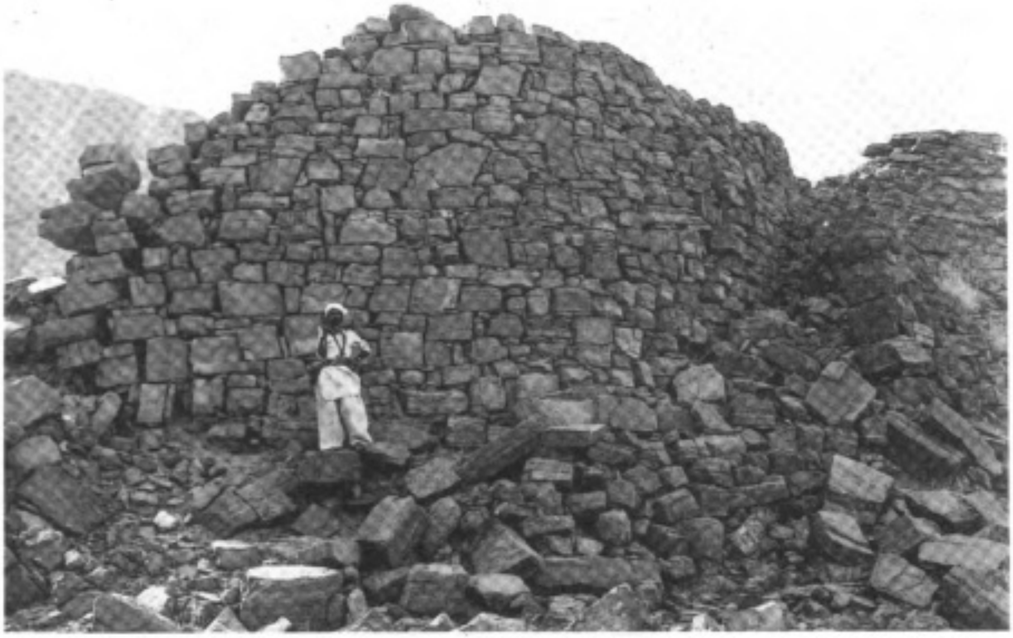
Carvings and sculptures in stone needing fine repairs are, however, mended with polymers. For a strong bonding in cracks or joining separate pieces of stone objects, thermoset polymers like araldite or epoxy resin may be used judiciously (due to its non-reversibility) where the object to be repaired is not exposed to the sun. On the other hand, use of such resins on exposed surfaces would cause rapid thermally-induced saturation followed by its breakdown with appearance of bloom and blanching (whitening) to lend a mottled patchy look to the stonework. The cracks on the head of the statue, repaired earlier, were to be redone with a thermoplastic polymer like polyvinyle acetate or polymethylmethacrilate in toluene mixed with powdered rock to match with the original rock of the statue. These polymers do not alter in normal conditions and are reversible, i.e. can be taken off whenever not required. The entire rock-surface of the head was not required to be repaired and certainly not with a thermoset polymer. That is why the mistake committed in earlier repair had to be rectified (Pl. 39.8) with great difficulty.

The degree of success of a project executed under the guidance of a professional architectural conservation expert depends on how faithfully his instructions are carried out at site by a site-supervisor or a dependable agency with technical background and aesthetic taste. In the execution of works, therefore, mistakes committed, time wasted and infructuous expenditure incurred very often would be avoidable if there is an adequately-trained and experienced technical hand at the site for execution of works of a project.

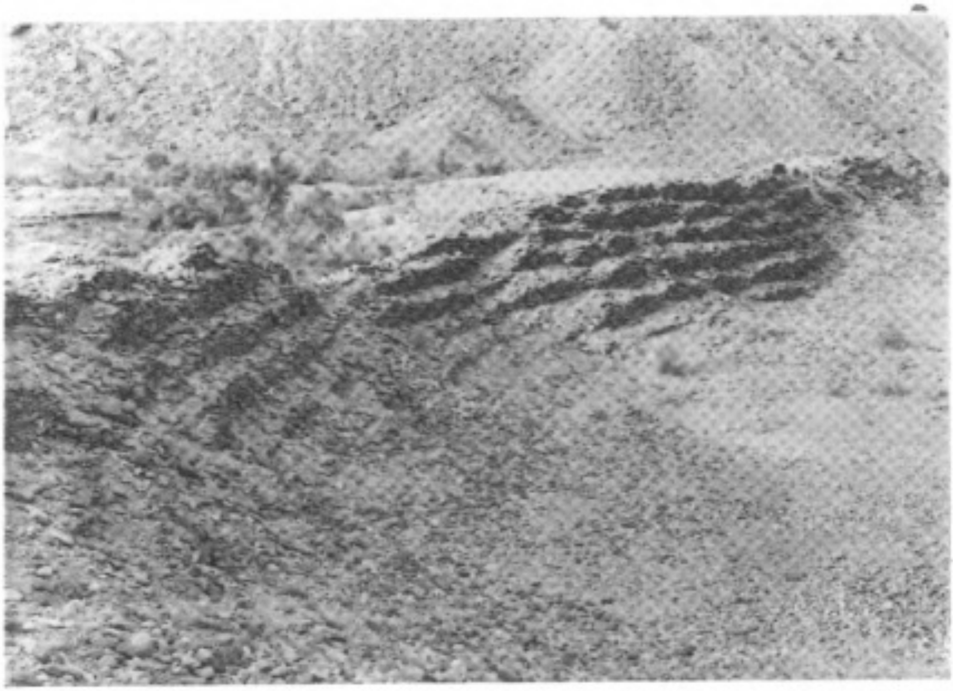
Reverting to the issue of suitability or otherwise of cement mortar in restoration of rock-cut shrines. At Bāwangajā cement mortar was used in the past in repairing, the repaired portions in due course of time lost bonding with the stone and fell which incidence might have worked in the minds of Samiti-members to go against it. In Europe the main objection being that calcium, sodium and potassium sulphates and free lime in cement might pose problems when used. This apprehension is countered by our scientists by saying that in setting of cement there is a formation of complex silicates which bind the soluble salt in cement and so it does not remain in free state to cause any harm. For example at Ajanta in filleting the broken edges of plaster (of murals) Prof. Cicconi (Italian expert hired by the then Nizam Government) used cement in 1921-22 which does not show any alteration or affected by salt, at least not detected by naked eyes. As indicated above, a satisfactory solution to the problem still eludes the scientists all over the world.

Under the International Council on Monuments and Sites (ICOMOS), a Non-Governmental Organisation working in close co-operation with the UNESCO, there are two International Committees on Stone and Rock Art (prehistoric) respectively. Unfortunately, none of these Committees are concerned with or interested in the problems of preservation and restoration of rock-cut shrines. Therefore, no worthwhile research has been done on the problems. Only recently Chile had arranged for an International Competition by calling for research papers on preservation of monuments in lava and tuff. As the decaying monolithic statues in Easter Islands needed early preservation measures, they wanted the successful method to be adopted for application. The details of the successful method are yet to be known.

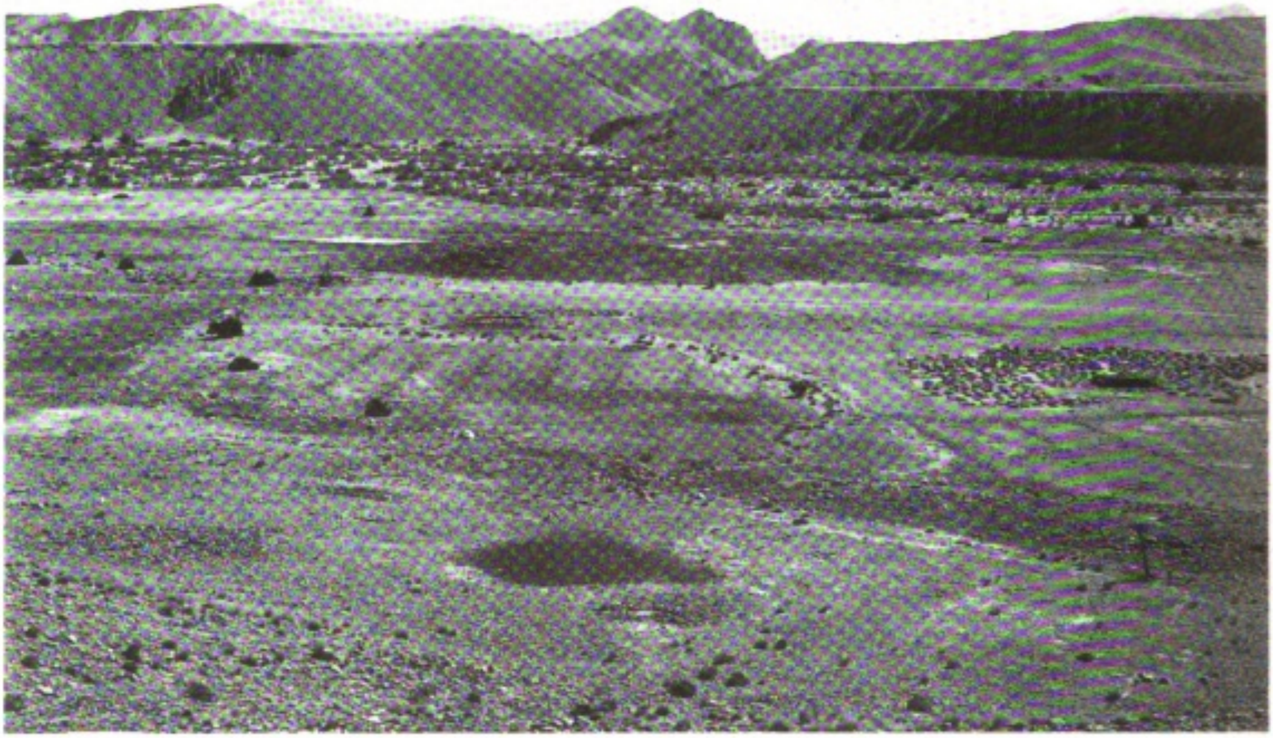
A research project, therefore, needs to be launched on the use of cement in restoration of rock-cut shrines. The Project's work should be to find a suitable chemical additive especially to bind the soluble salts and free lime, if any present, to make them inert, in new samples of cement mortar. Samples of old cement mortar used in the fifties in the restoration of rock-cut shrines may also simultaneously be analysed by X-ray powder diffraction and infra-red spectrophotometry and studied by scanning electron microscopy, to evaluate their present condition after aging for four decades. The results should indicate the future actions to be taken.



Pl. 6.1. Gabarbund at Mowari, Mazarani Nai, Kirthar mountains

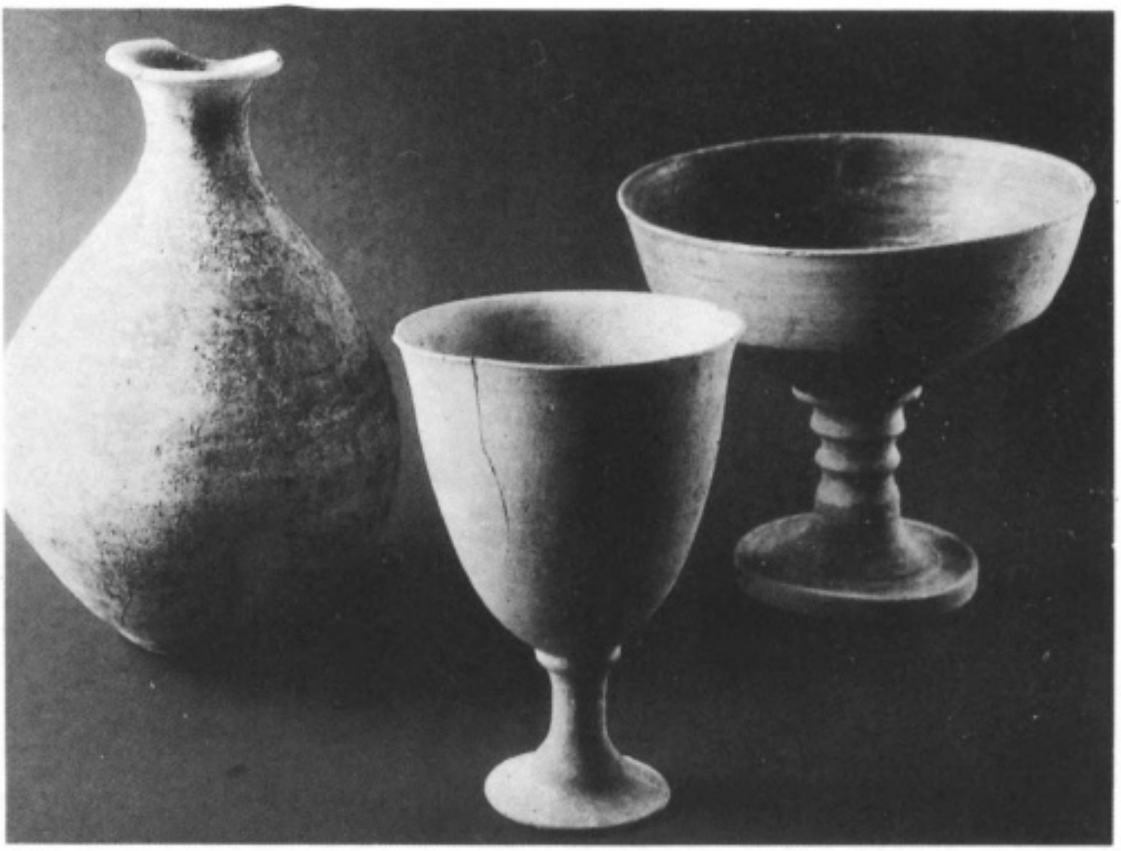


Pl. 6.2. Tiered Gabarbund at Nuko, Sindh Kohistan

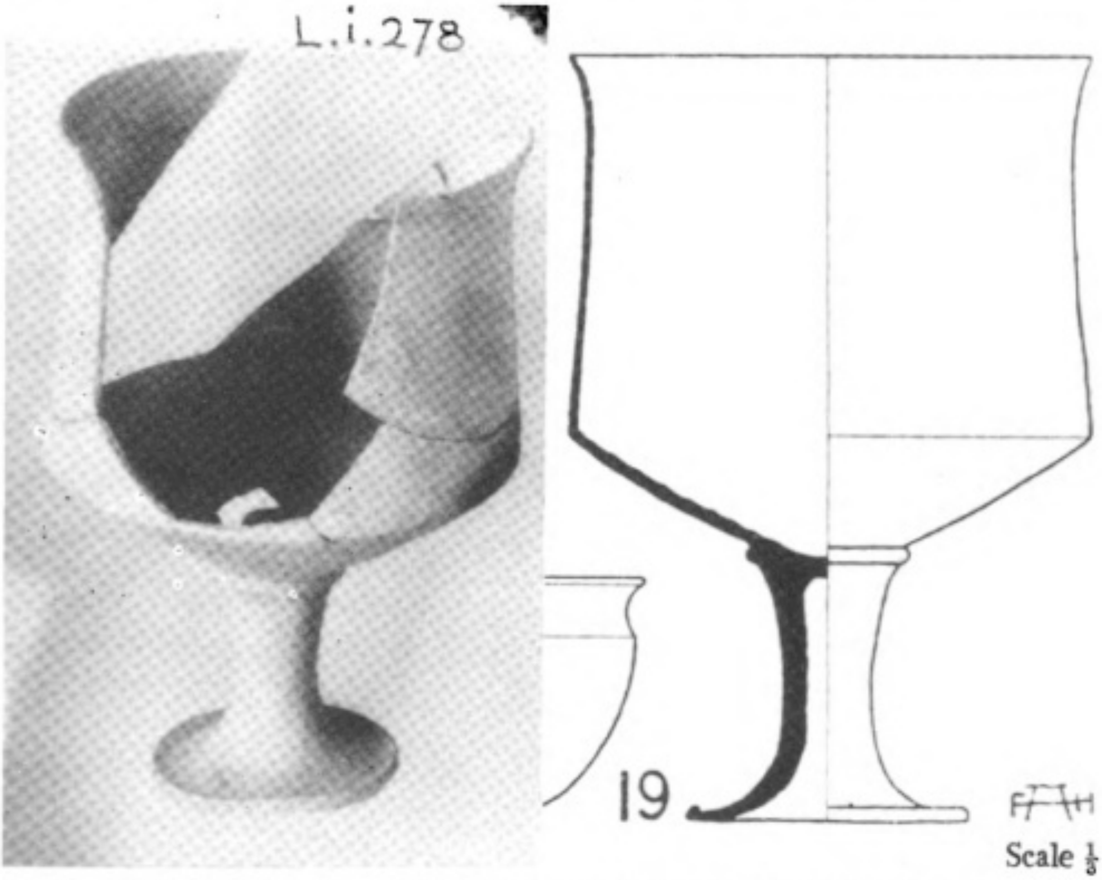


Pl. 6.3. Prehistoric site of Salari, with *in situ* agricultural field boundary-markers of stone, Kirthar mountains

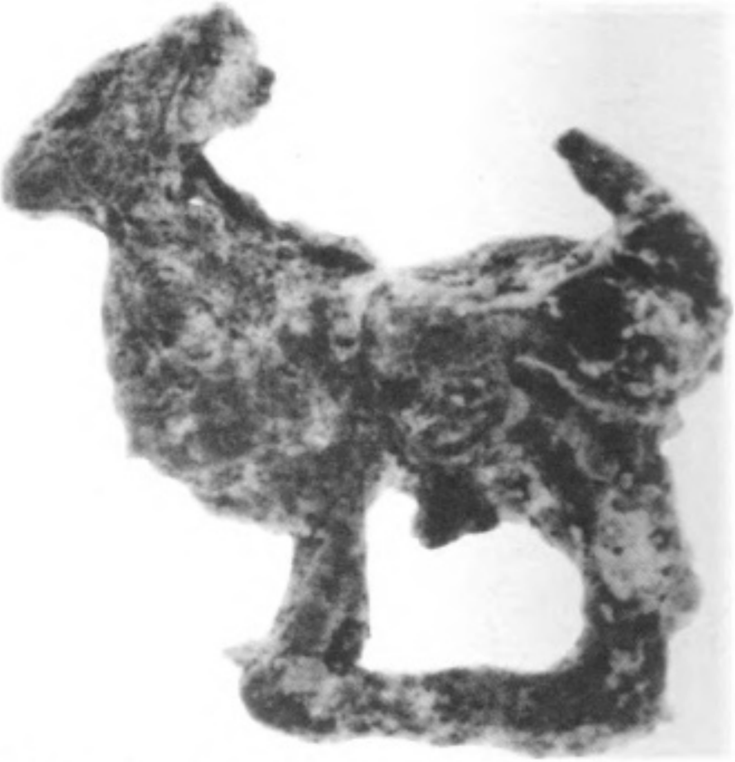
Pl. 6.4. South side of the mound, Ghazi Shah



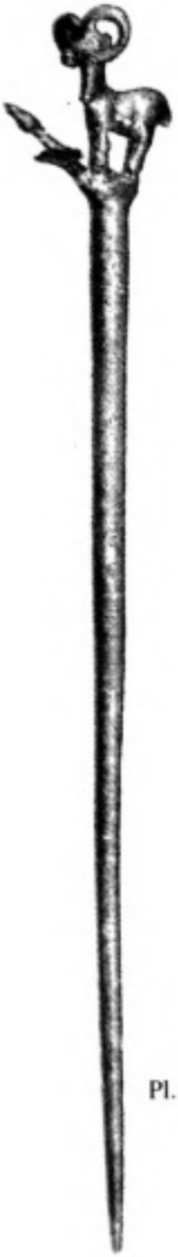
Pl. 10.1. Pots including pedestalled goblets, Mehrgarh VIII (after J.-F. Jarrige 1987, Abb. 77)



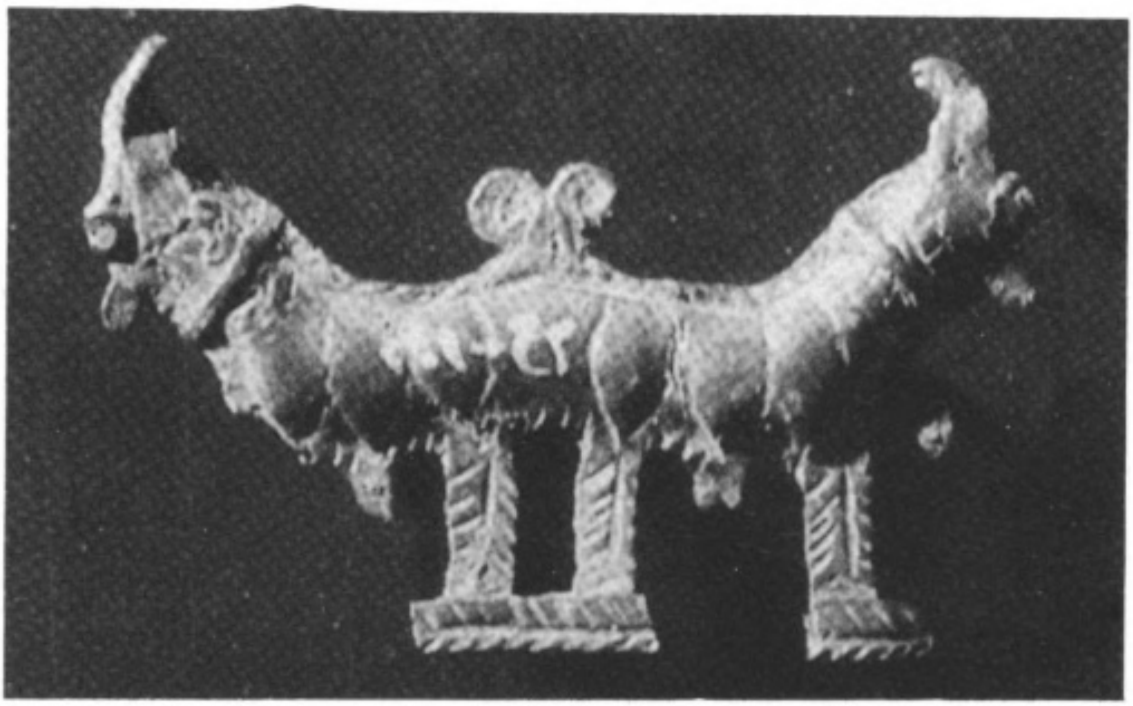
Pl. 10.2. Pedestalled goblet, Khurab burial L.i. (after Stein 1937, Pls. XV and XXXII, no. 19)



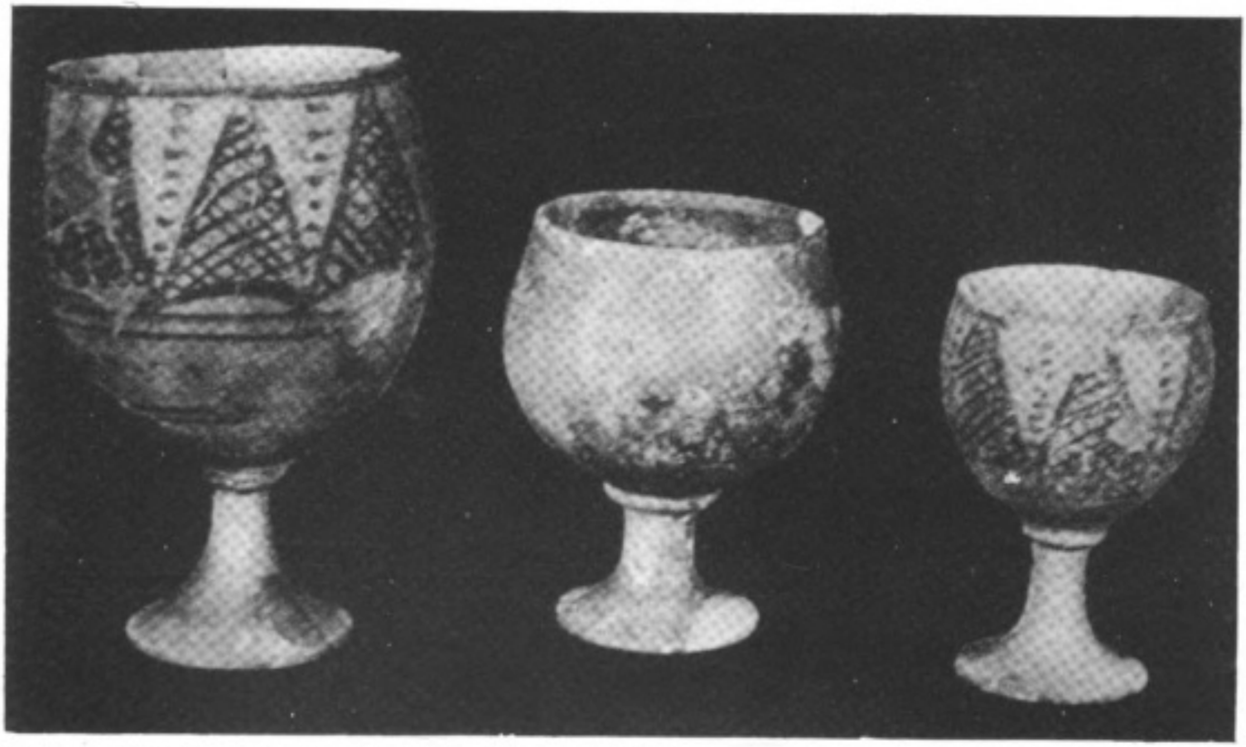
Pl. 10.3. Copper/bronze horned animal (probably a goat), Hamala North (During Caspers, *JESHO*, XXX, 1987, Pl. I, 1. By courtesy of the Trustees of the British Museum, Department of Western Asiatic Antiquities)



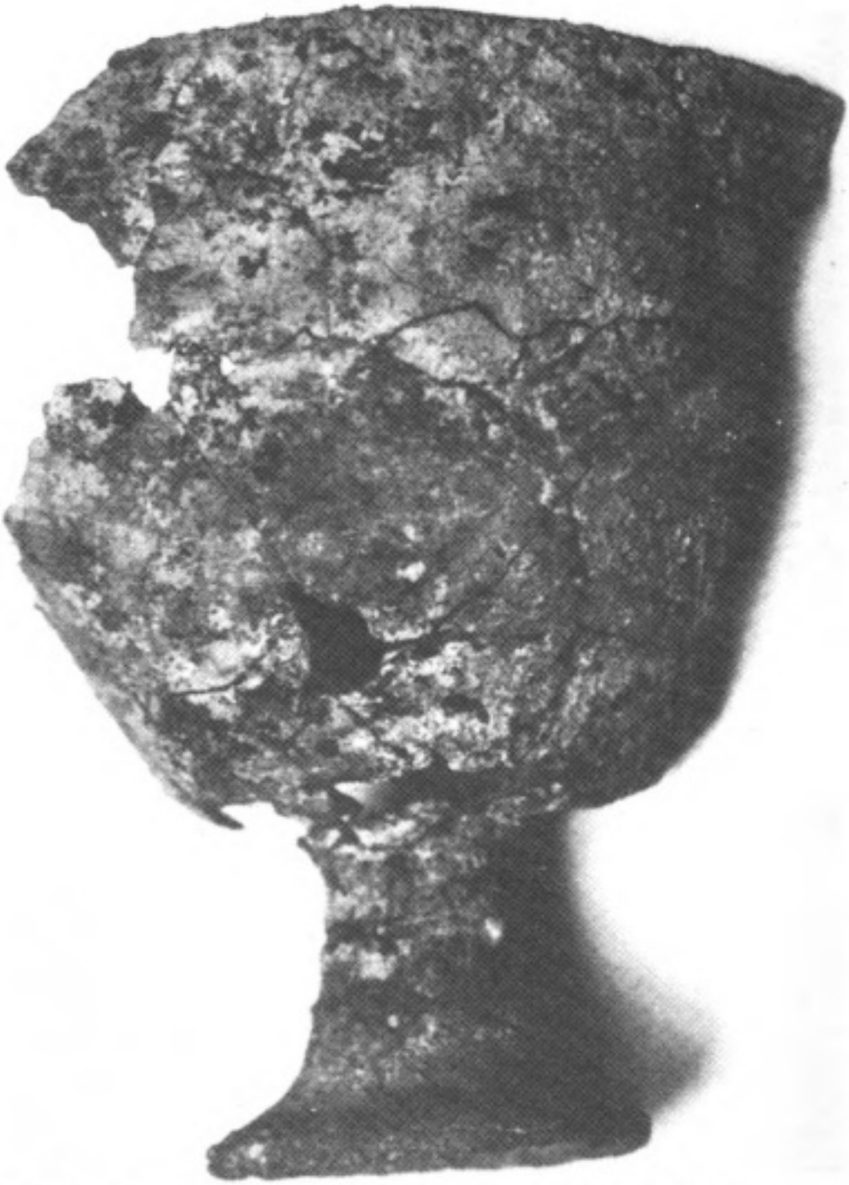
Pl. 10.4. Bactrian cosmetic pin decorated with a mountain-goat and a human being (after V.I. Sarianidi 1986a, Pl. 71)



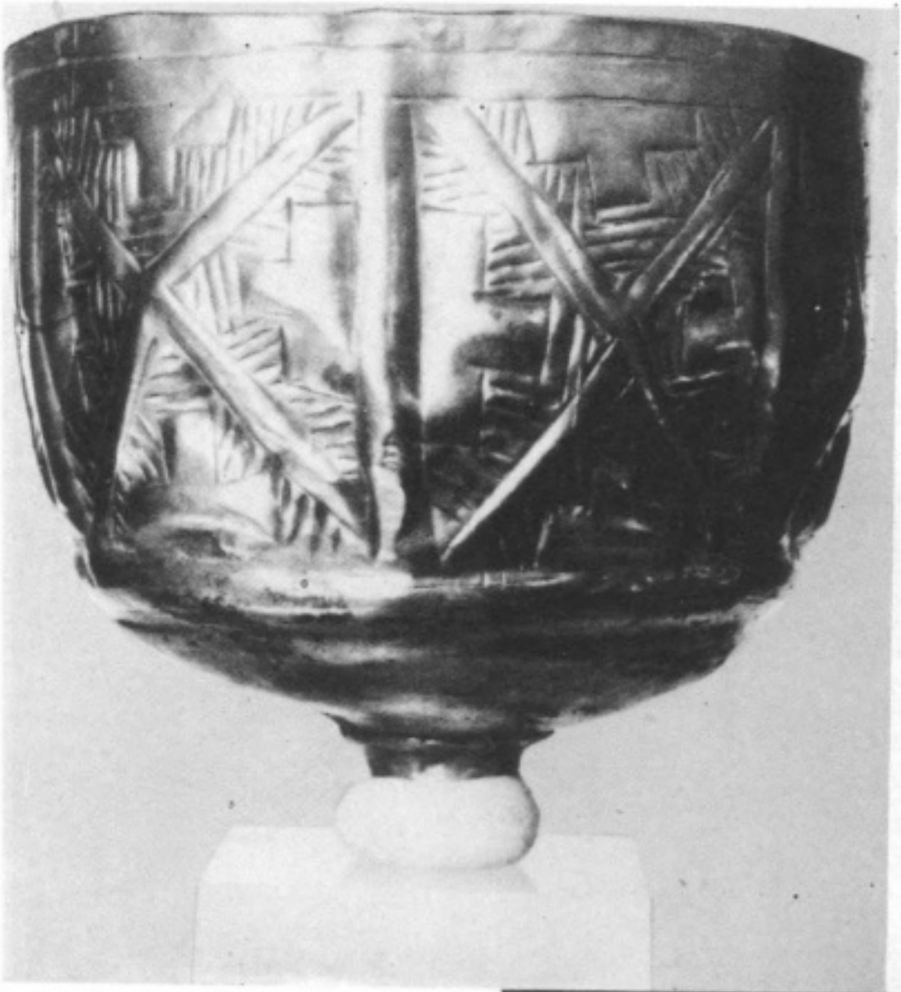
Pl. 10.5. Gold two-headed and two-torsoed capride, Qatarrah, Abu Dhabi (after S. Cleuziou 1978-79, Pl. on p. 44)



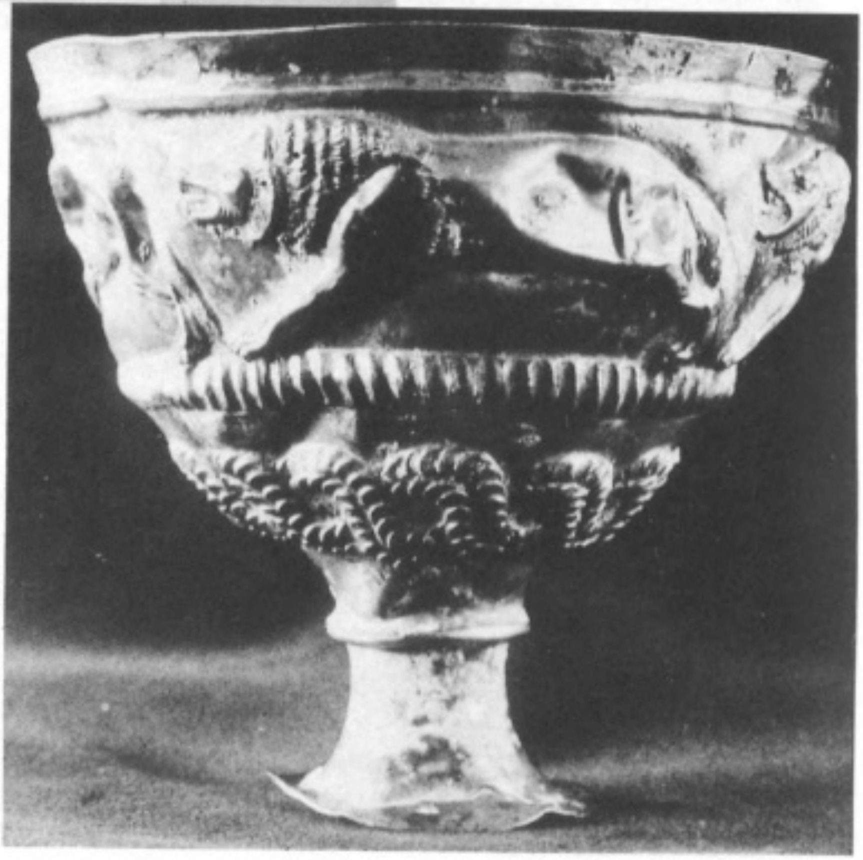
Pl. 10.6. Pedestalled goblets, 'Ali (after M. Rice 1985, Pl. X)



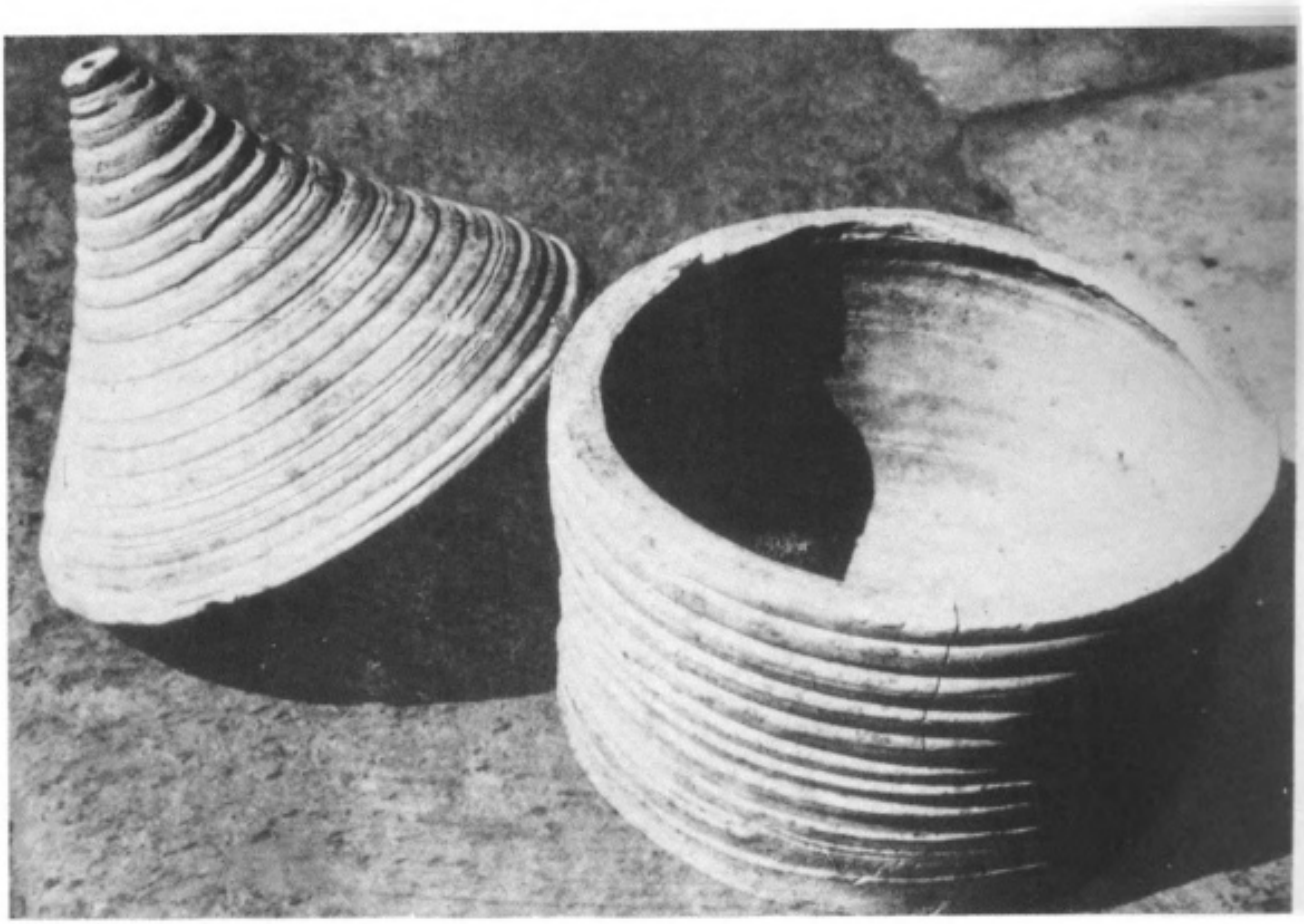
Pl. 10.7. Copper/bronze pedestalled goblet, Hamala North (During Caspers 1980, Pl. VI, no. 2. By courtesy of the Trustees of the British Museum, Department of Western Asiatic Antiquities)



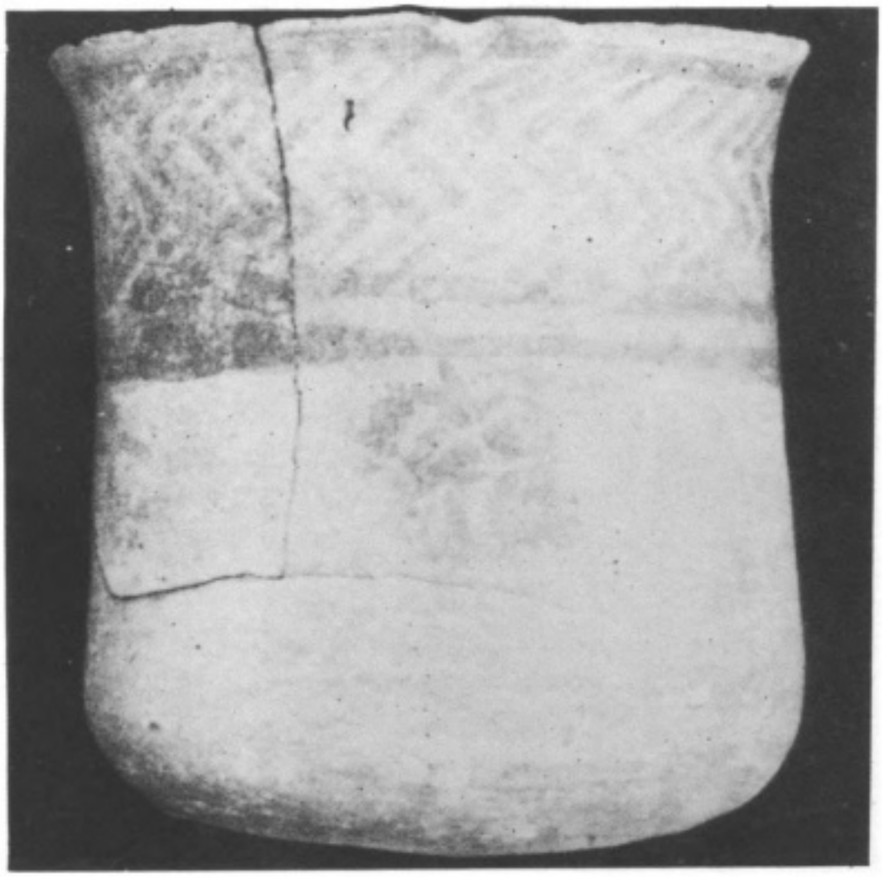
Pl. 10.8. Bowl part of a gold pedestalled goblet, Fullol hoard, Badakhshan, east Afghanistan (after V. I. Sarianidi 1986a, Pl. 64)



Pl. 10.9. Gold pedestalled goblet, Quetta hoard (after J.-F. Jarrige 1987, Abb. 85)

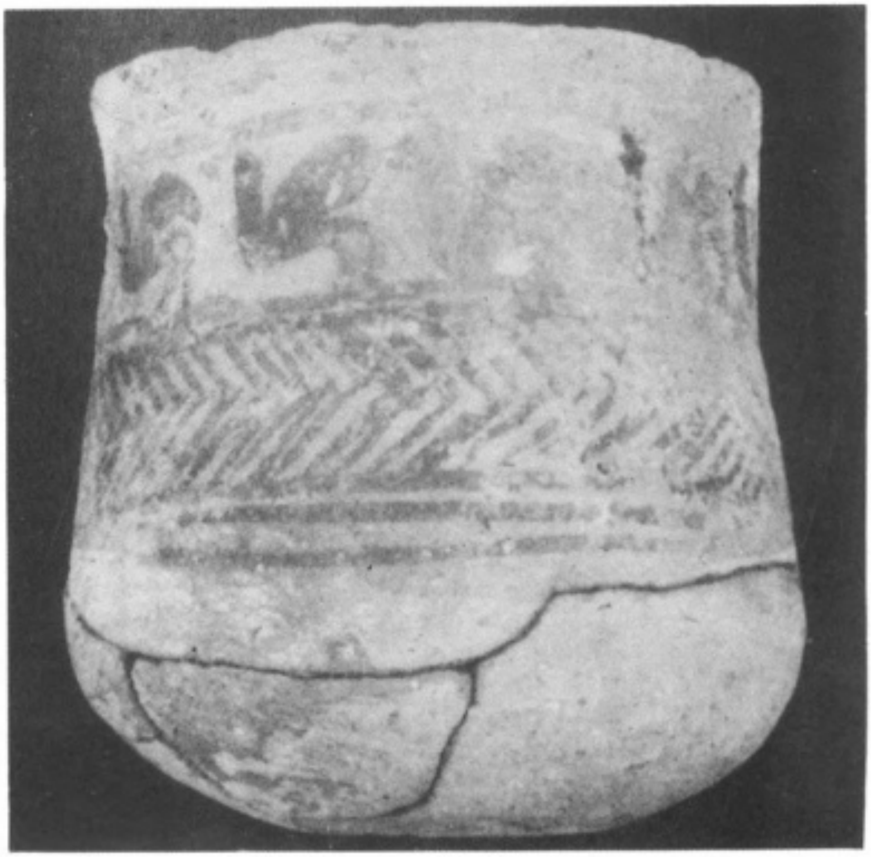


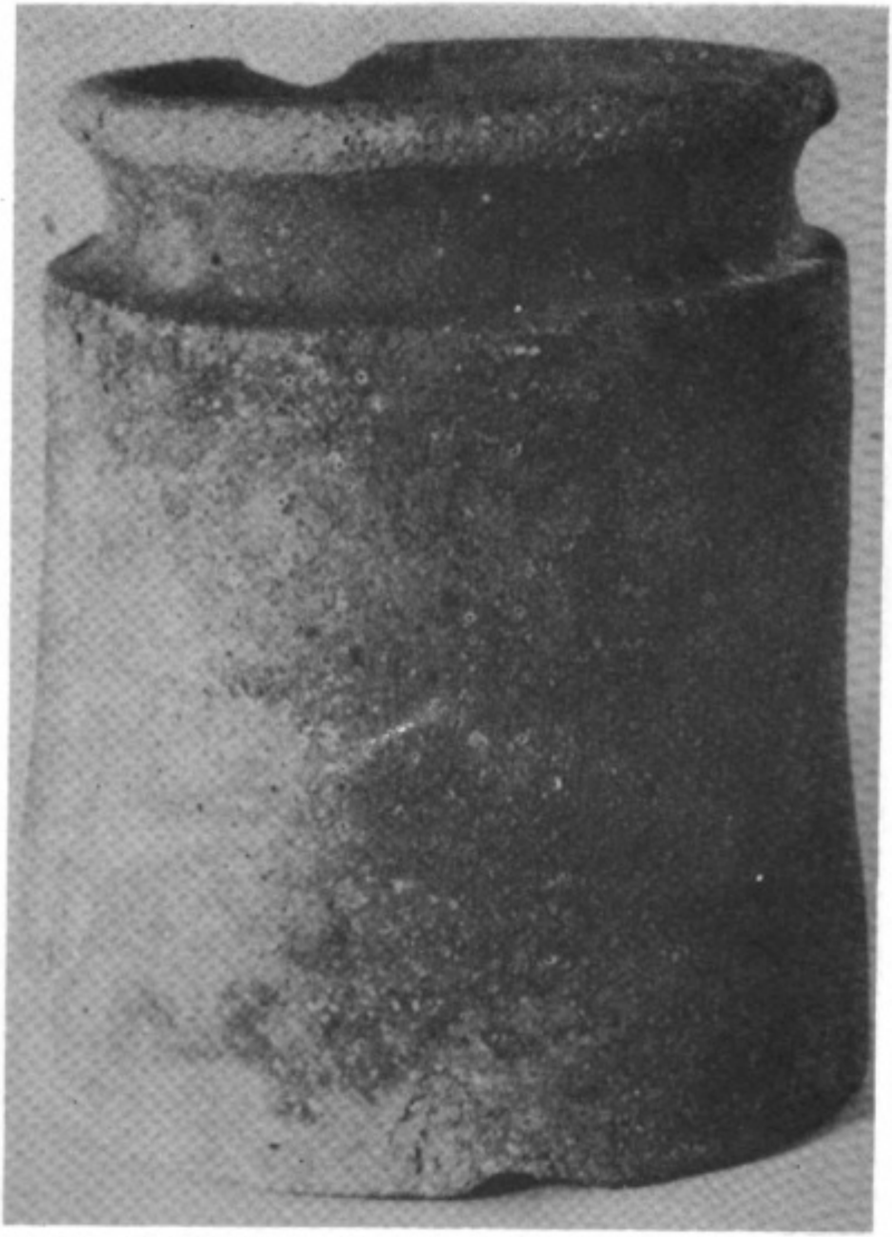
Pl. 10.10. Pot with lid in the shape of a yurt from Bactria (after V.I. Sarianidi 1986a, Pl. 27)



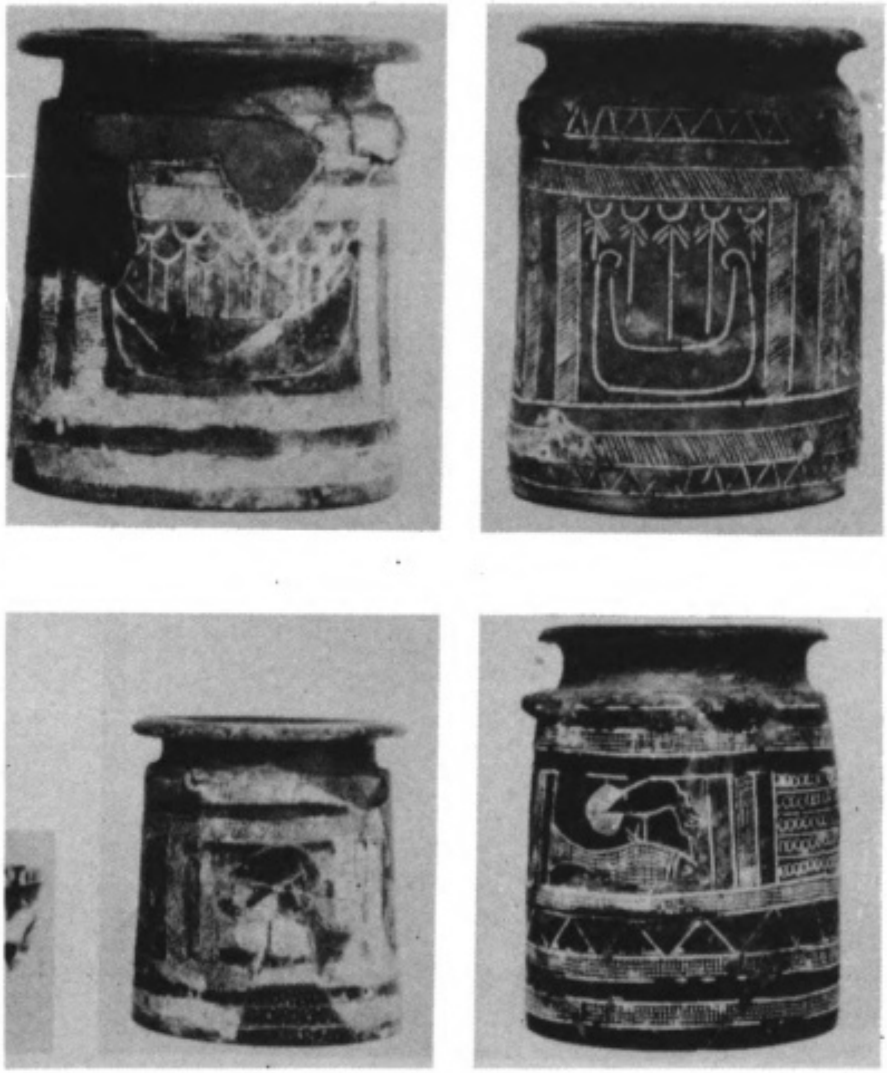
Pl. 10.11. Beaker, Shimal Tomb 6, Ras al-Khaimah, U.A.E. (after B. de Cardi 1988, Fig. 3)

Pl. 10.12. Beaker, Shimal Tomb 6, Ras al-Khaimah, U.A.E. (after B. de Cardi 1988, Fig. 2)

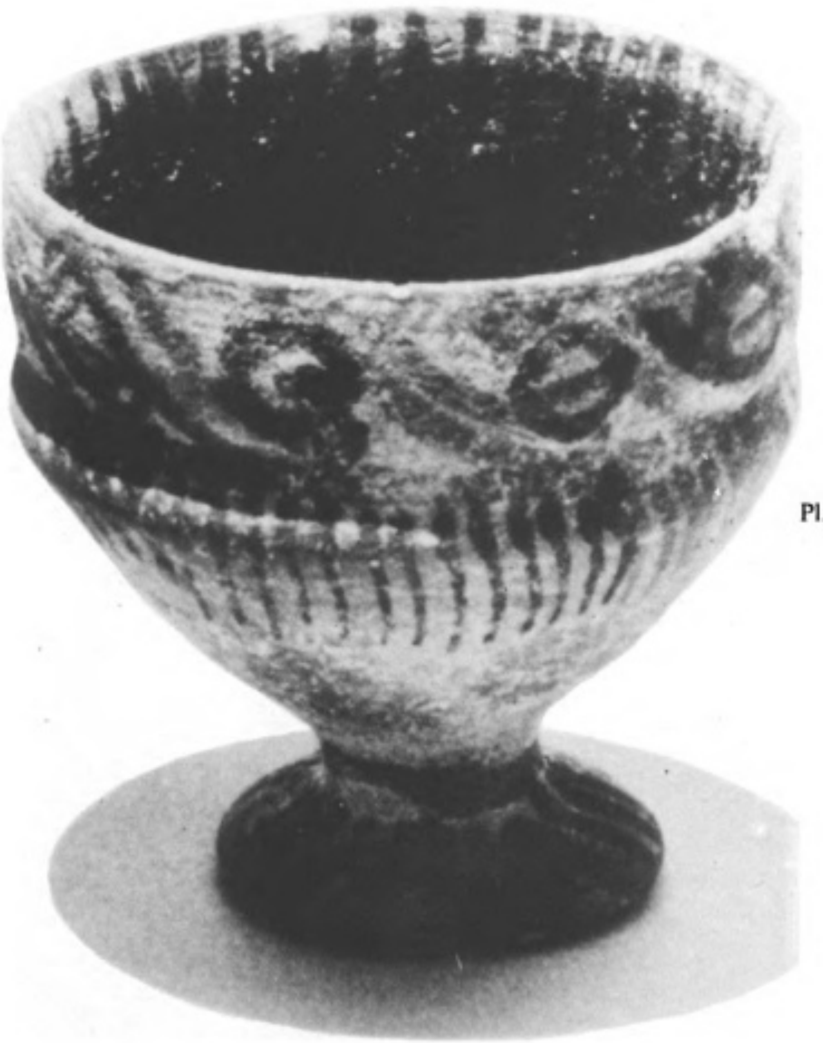




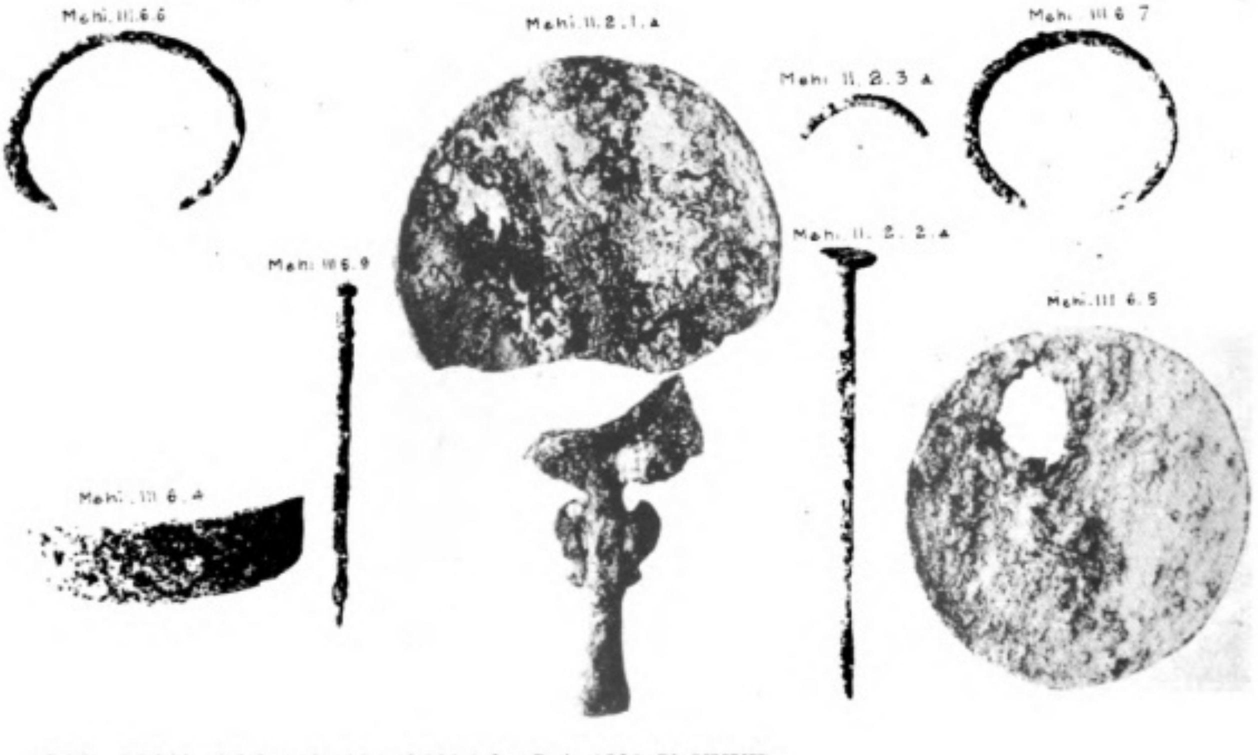
Pl. 10.13. Jar, 'Ali, Tumulus 5 (after Mackay 1929, Pl. VII, 12. By courtesy of the Trustees of the British Museum, Department of Western Asiatic Antiquities)



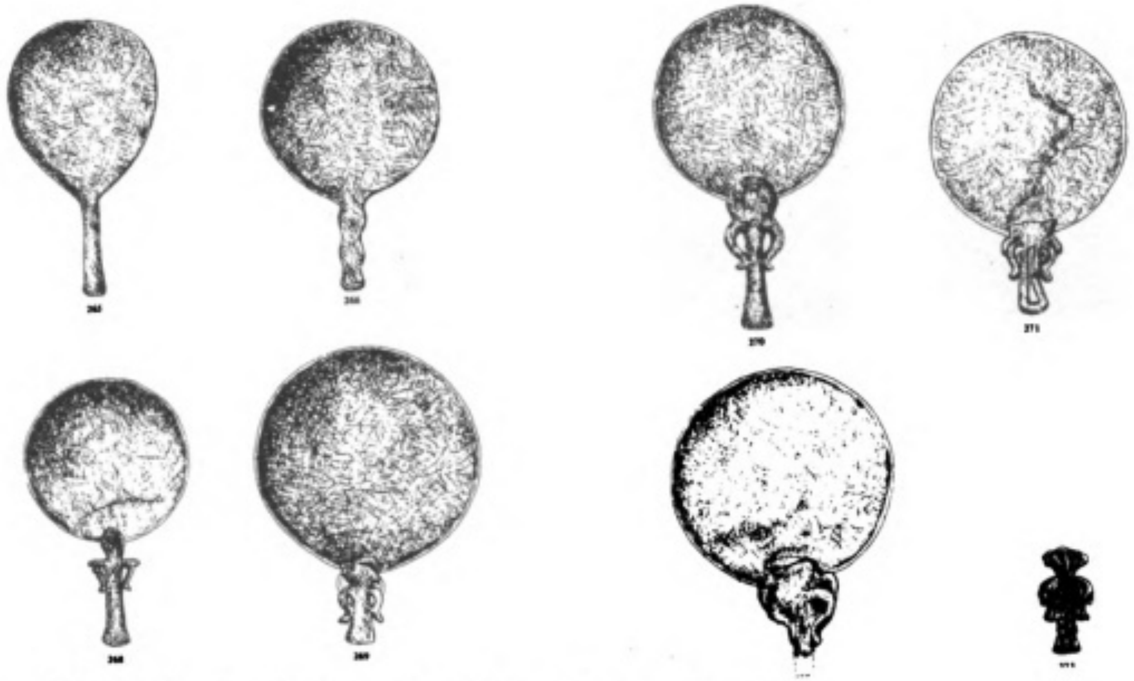
Pl. 10.14 b+c. Vessels with suspension-lugs, Tello, Djokha and Susa (During Caspers 1972-1974, Pl. XX, e-f, h-i. By courtesy of the Musée du Louvre, Departement des Antiquités Orientales)



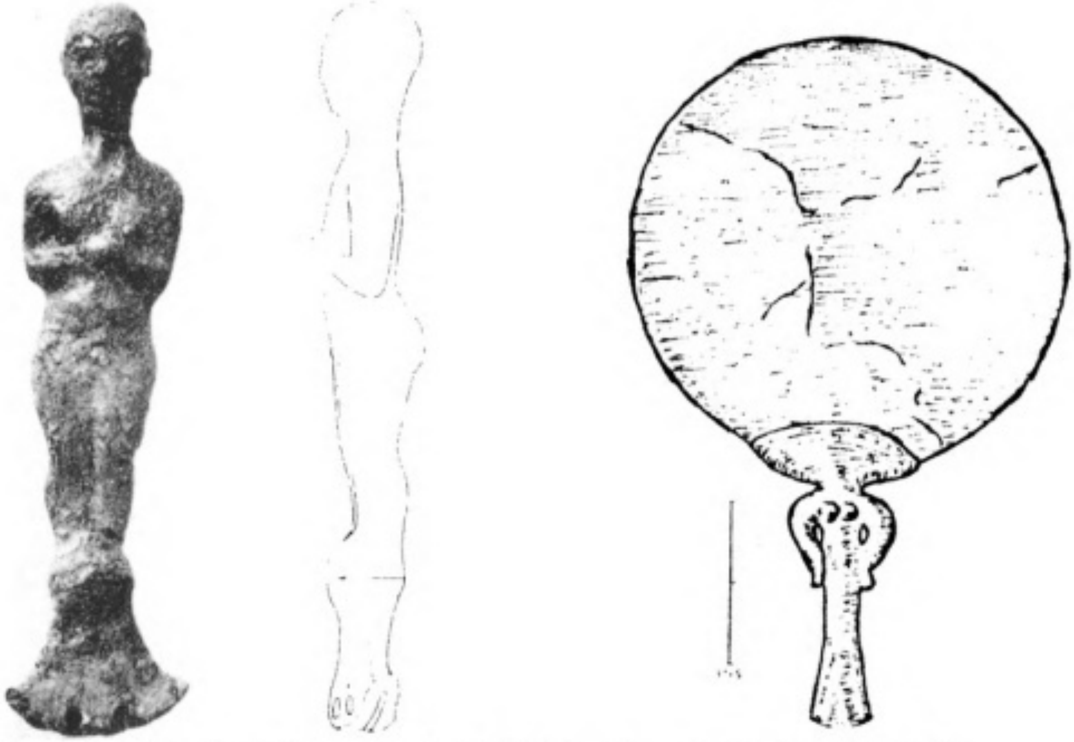
Pl. 10.15. Footed bowl, Al-Hajjar, Site 1, grave no. 9B (photograph by courtesy of M. Rice)



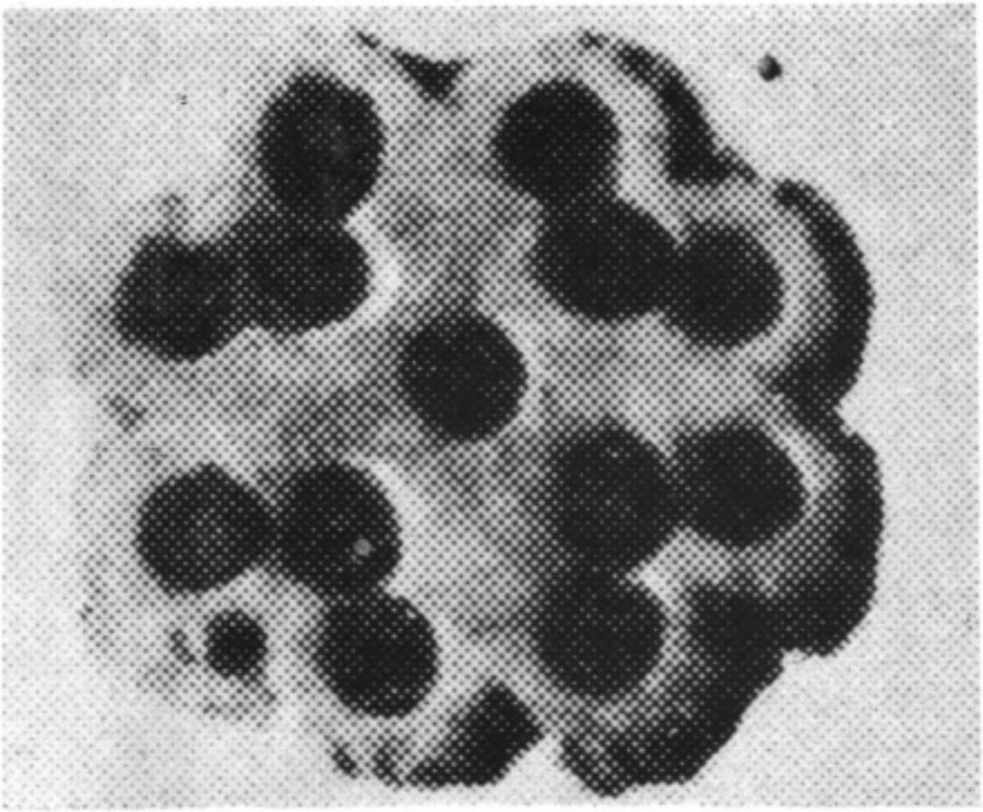
.16. Mehi burial deposits 11 and 111 (after Stein 1931, Pl. XXXII)



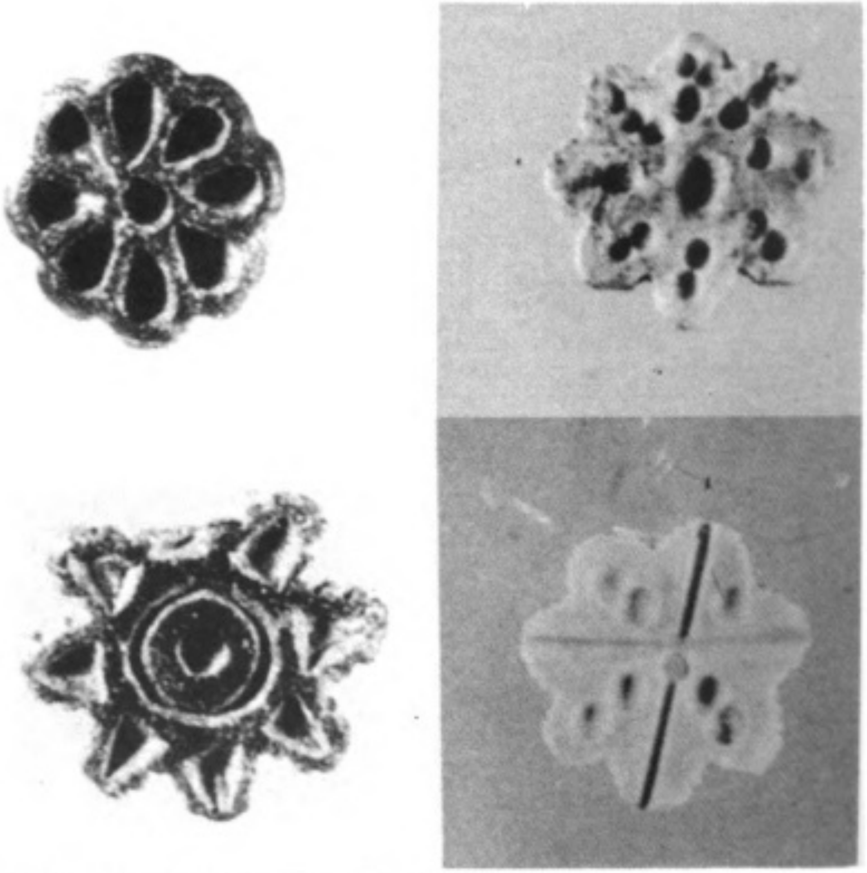
Pl. 10.17. Bactrian mirrors (after M.-H. Pottier, 1984, Figs. 38 and 39)



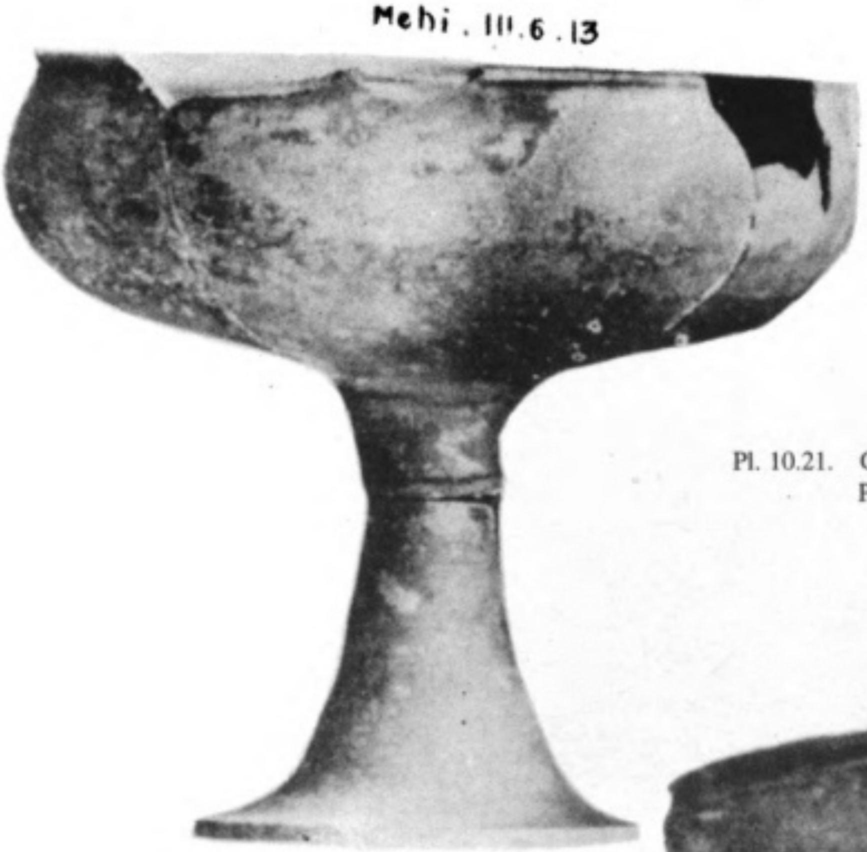
Pl. 10.18. Mirror-handle, Barbar Temple IIA, Bahrain (left), and mirror from Mehi (right) (During Caspers 1973, Figs. 2 and 3)



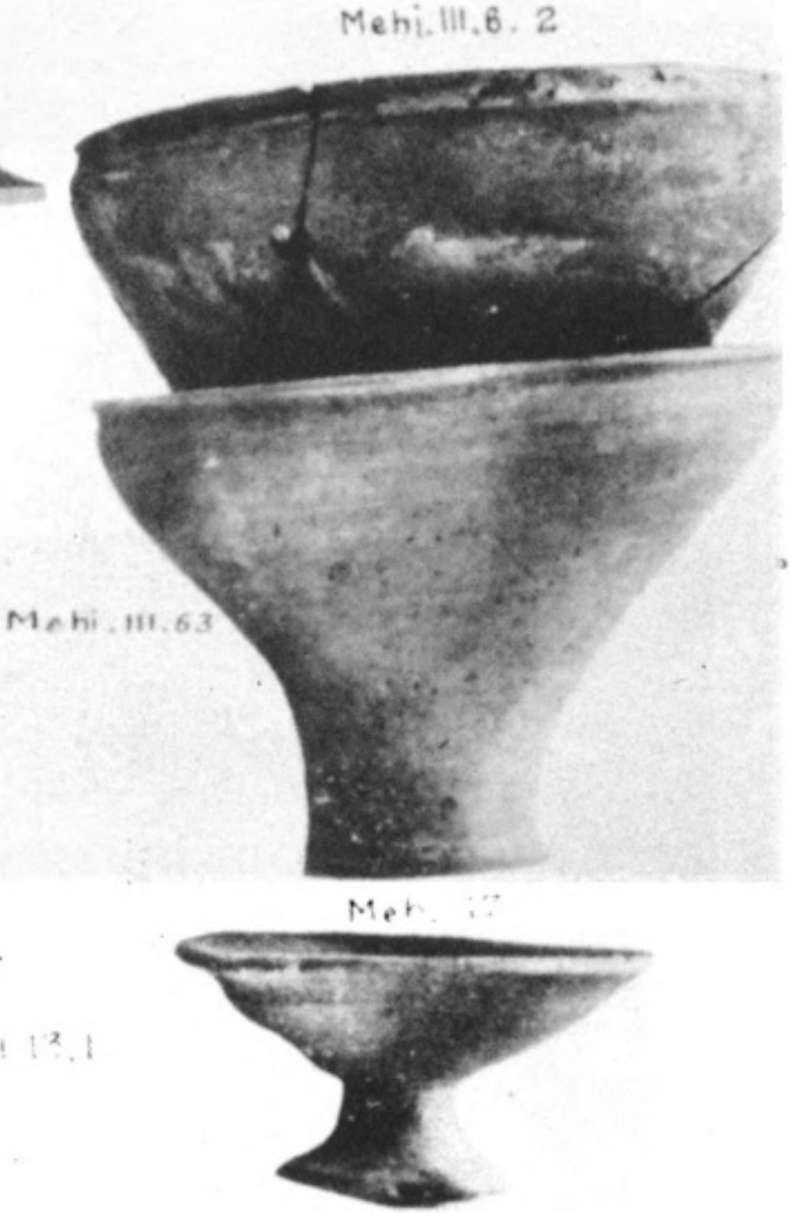
Pl. 10.19. Stamp-seal, Mehi (after Stein 1931, Pl. XXXI)



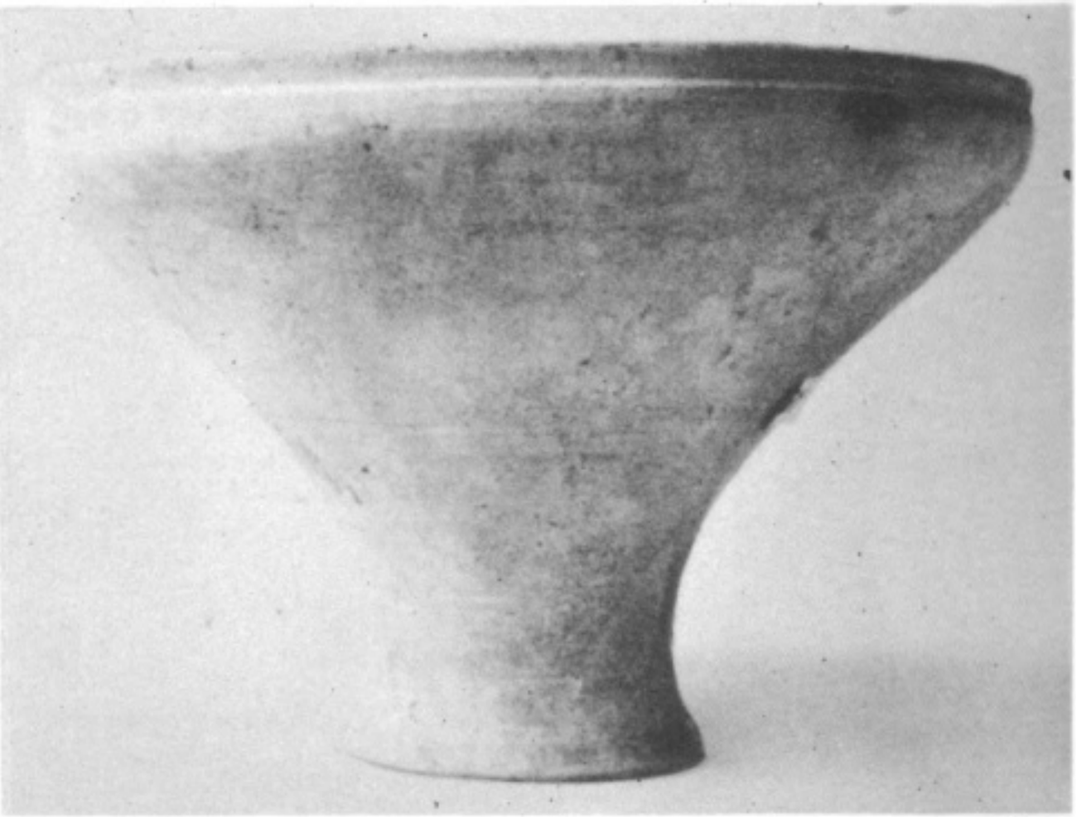
Pl. 10.20. Stamp-seals, Margiana (after V.I. Sarianidi 1986a, Pl. 86)



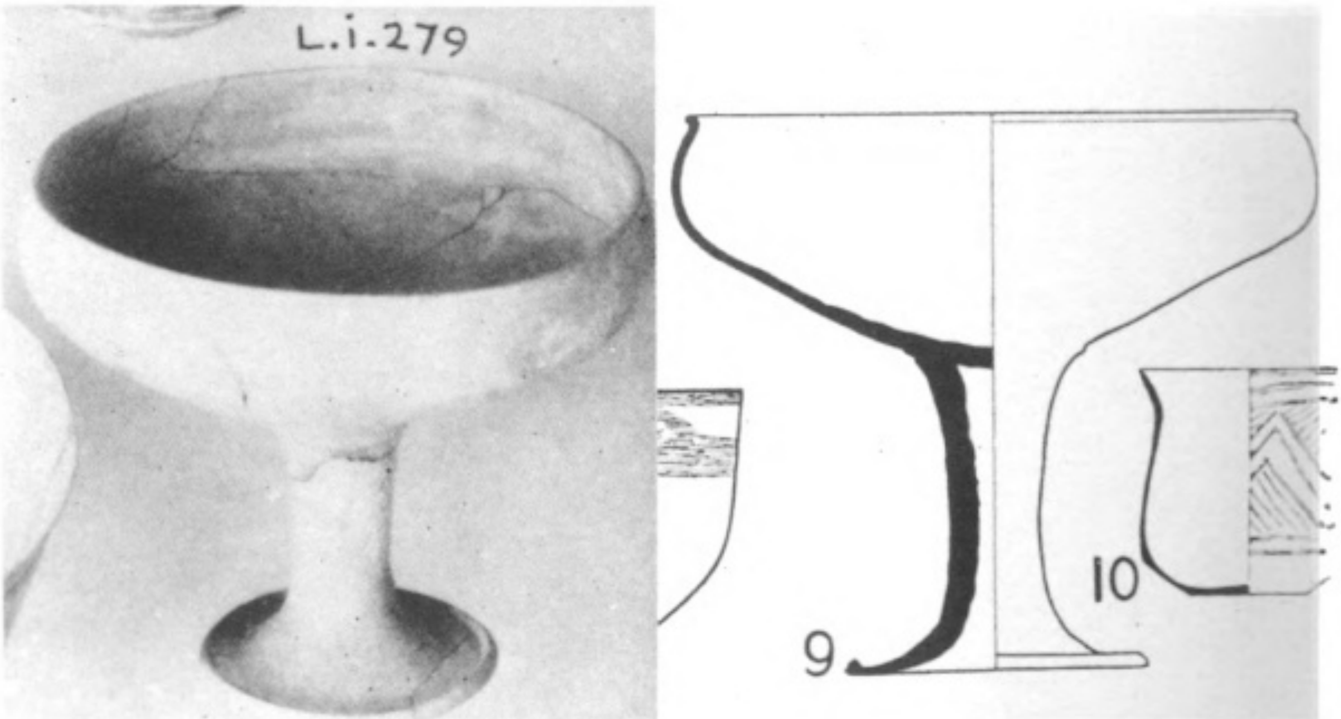
Pl. 10.21. Goblet, Mehi burial deposit 111 (after Stein 1931, Pl. XXX)



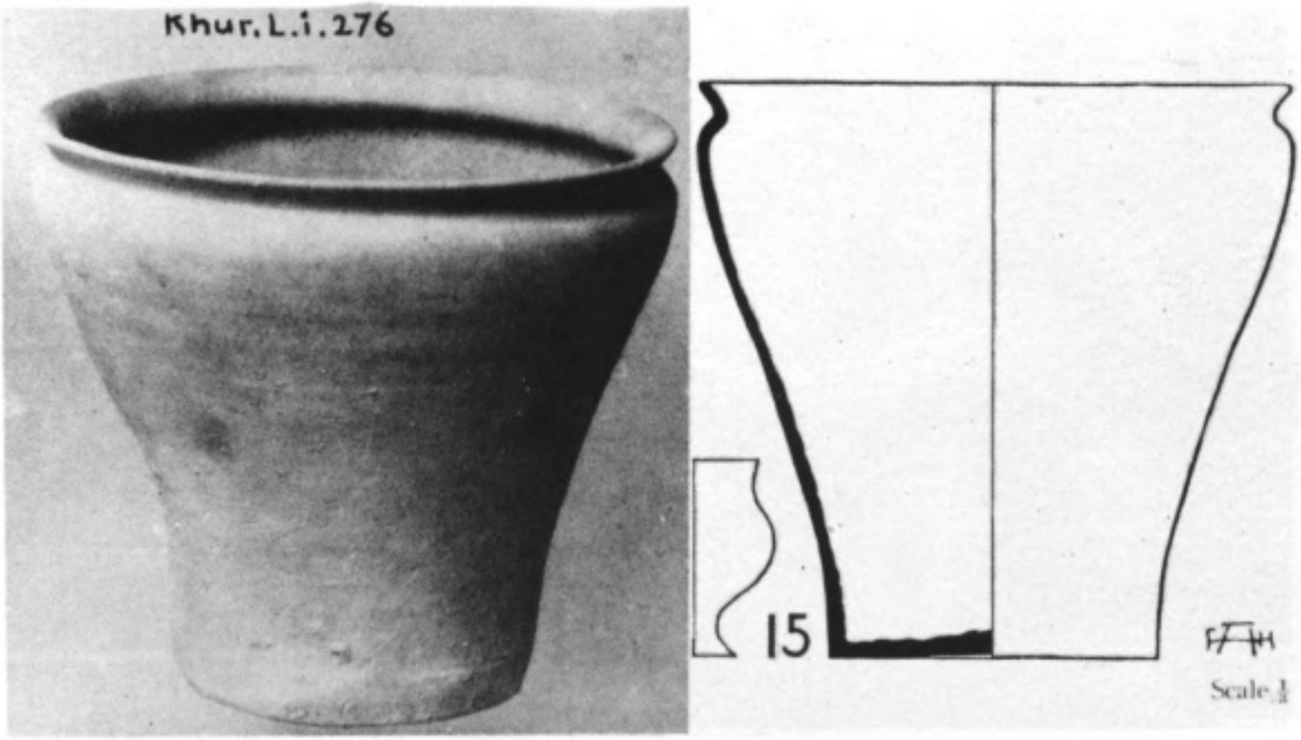
Pl. 10.22. Bowls, Mehi burial deposit 111 (after Stein 1931, Pl. XXX)



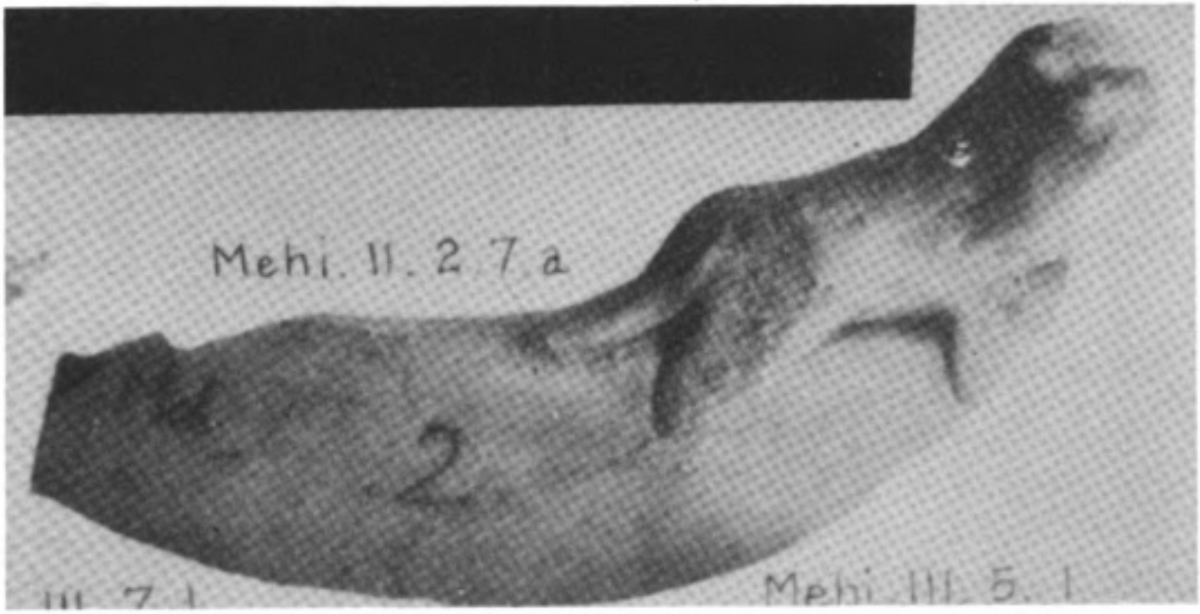
Pl. 10.23. Bowl, Dashly 3 (after V.I. Sarianidi 1986a, Pl. 24)



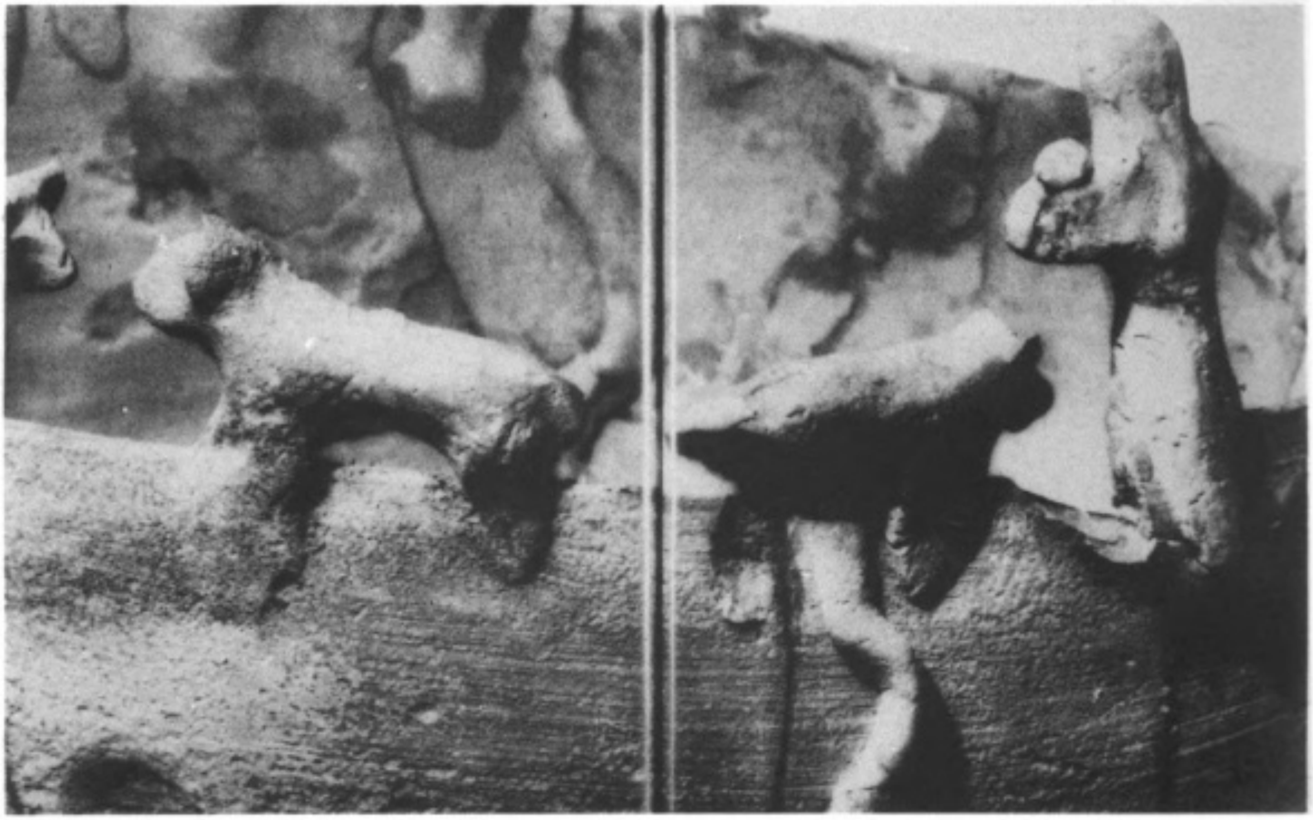
Pl. 10.24. Pedestalled chalice, Khurab burial L. i (after Stein 1937, Pls. XV and XXXII, no. 9)



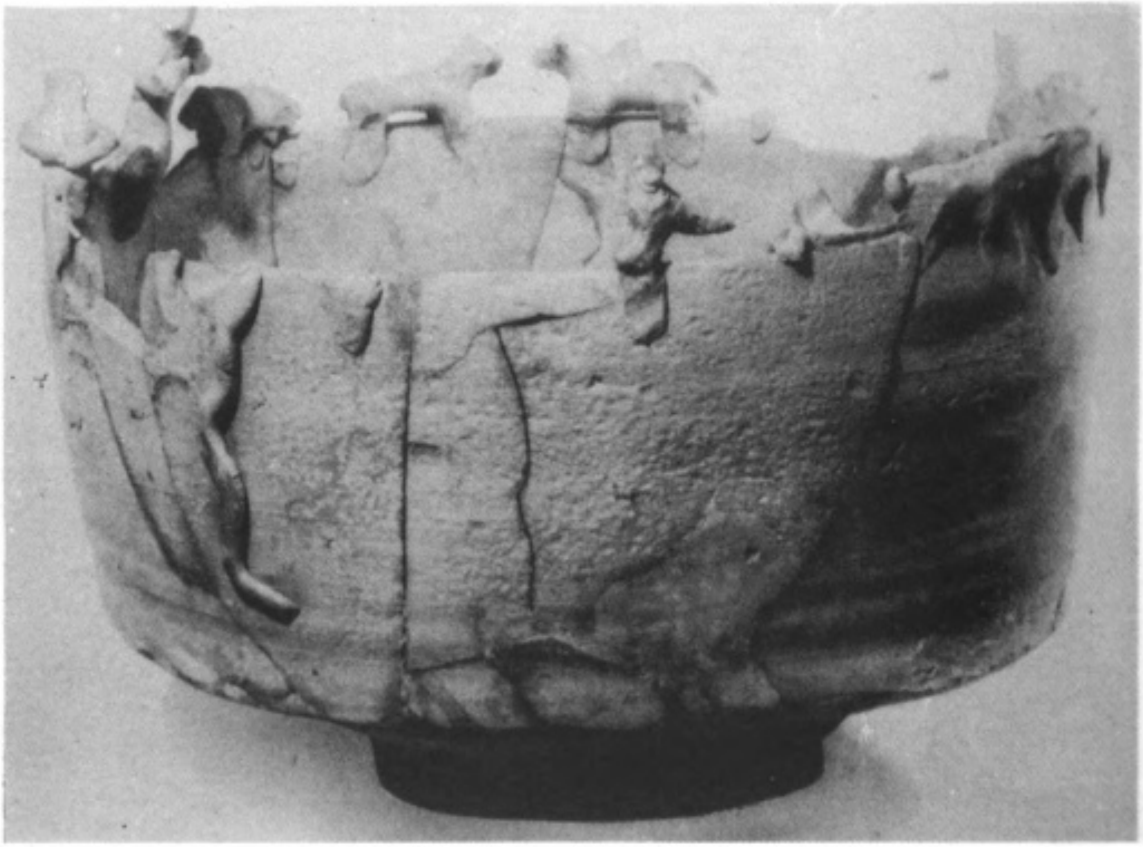
Pl. 10.25. Pot, Khurab burial L. i (after Stein 1937, Pls. VI and XXXIII, no. 15)



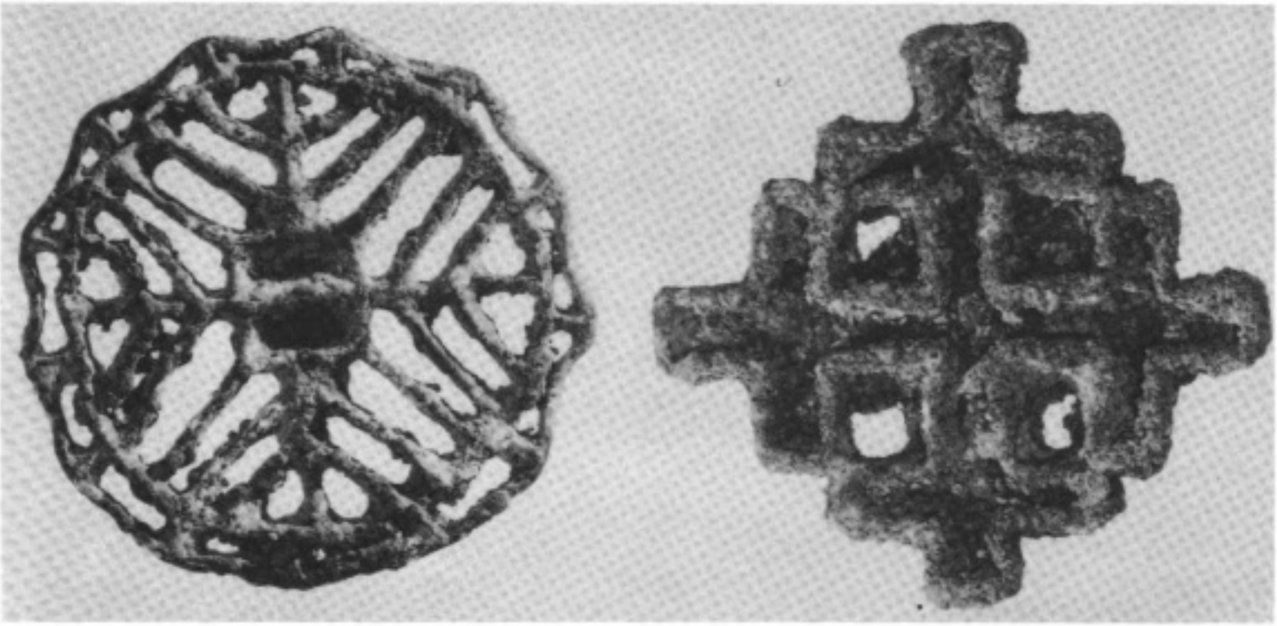
Pl. 10.26. Fragment of a rim with an animal, Mehi burial deposit 11 (after Stein 1931, Pl. XXXI)



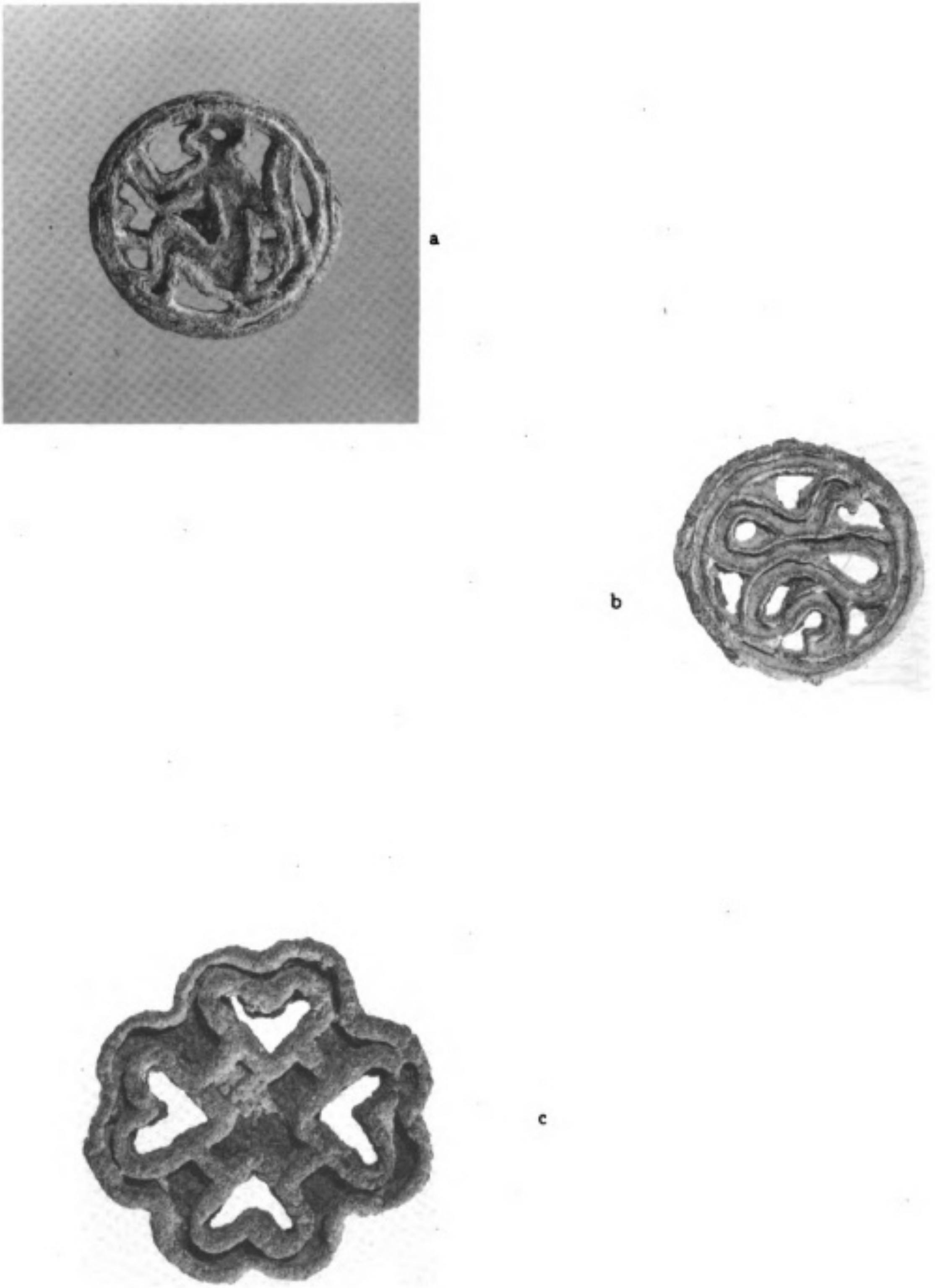
Pl. 10.27. Togolok cultic vase with human and animal figurines (after V.I. Sarianidi 1986a, Pl. 33)



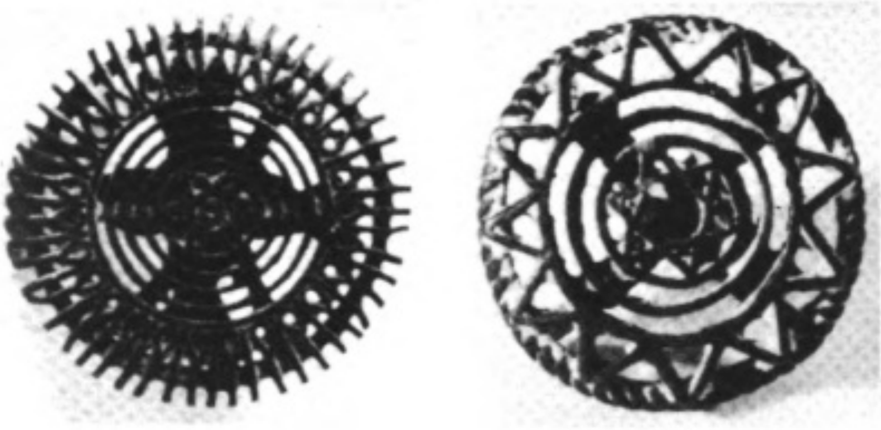
Pl. 10.28. Togolok cultic vase with human and animal figurines (after V.I. Sarianidi, 1986a, Pl. 35)



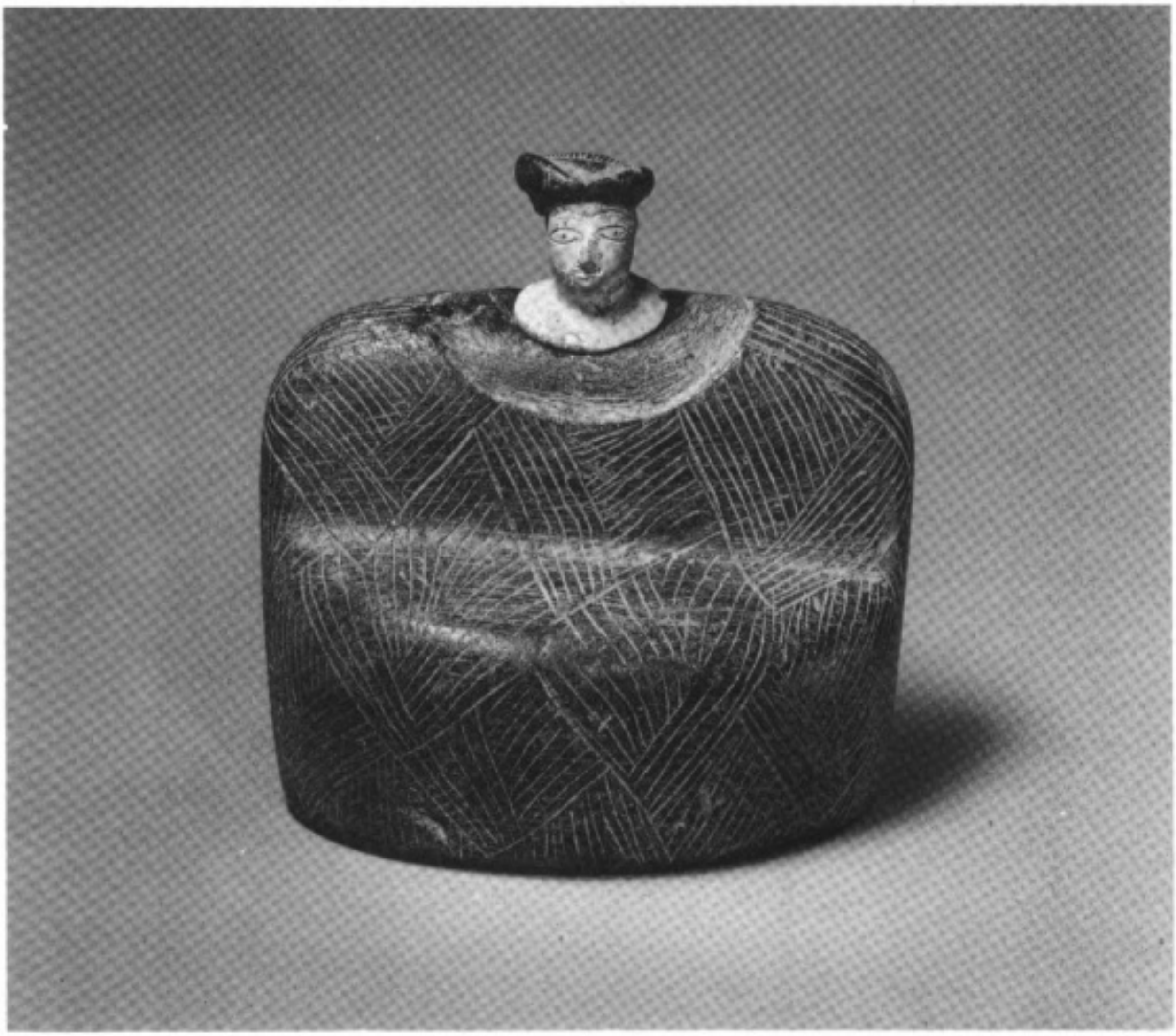
Pl. 11.1. Two copper/bronze compartmented seals, Afghanistan, early second millennium B.C. The Metropolitan Museum of Art. Purchase Mrs. Vladimir S. Littauer Gift. 1978. 261.6 (diam. 4·8 cm.), 1978. 261. 4 (diam. 5·1 cm.)



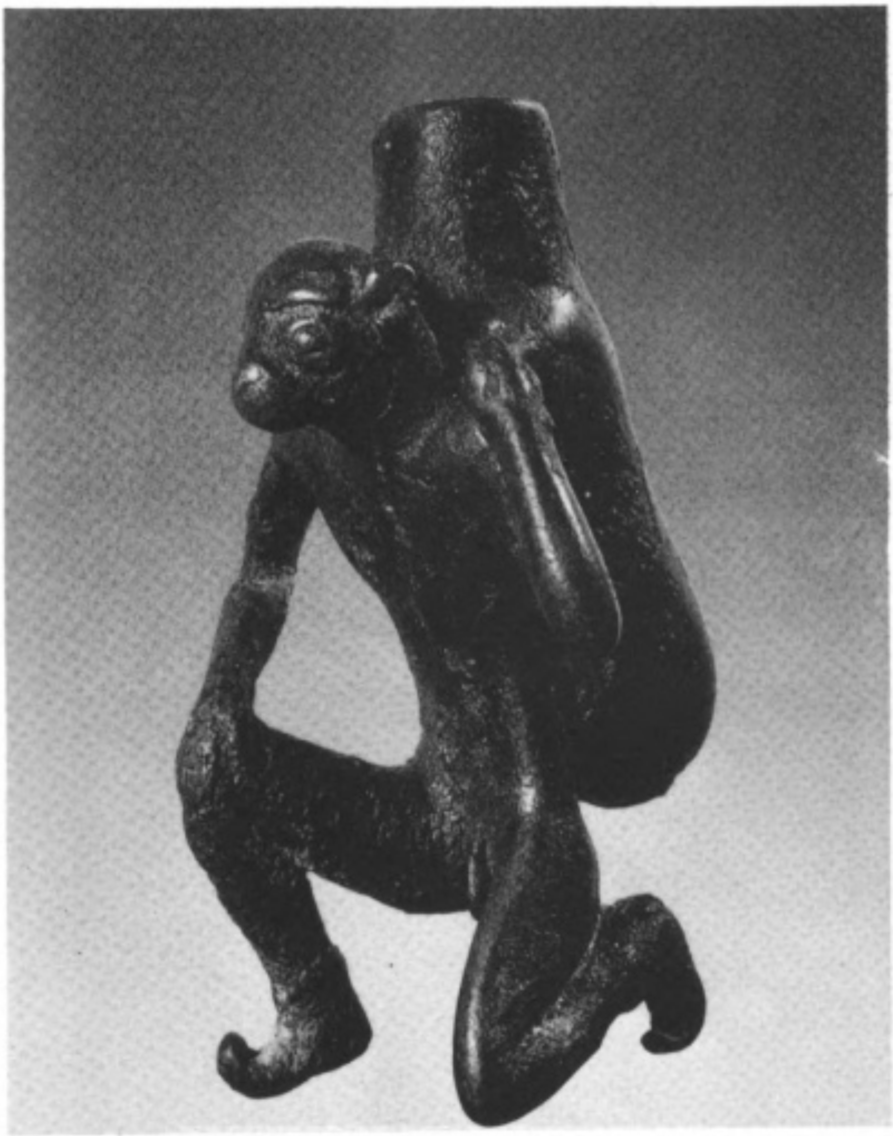
Pl. 11.2 a, b and c. Copper/bronze compartmented seals, Afghanistan: (a) seated monkey, late third or early second millennium B.C. The Metropolitan Museum of Art. Gift of Sheldon Lewis Breitbart. 1983.535.108 (diam. 4·1 cm.); (b) curled snake, early second millennium B.C. The Metropolitan Museum of Art. Gift of Mary C. Reed. 1978. 261. 1 (diam. 3·8 cm.); (c) rosette, early second millennium B.C. The Metropolitan Museum of Art. Purchase Mrs. Vladimir S. Littauer Gift. 1978. 261. 5 (diam. 5 cm.)



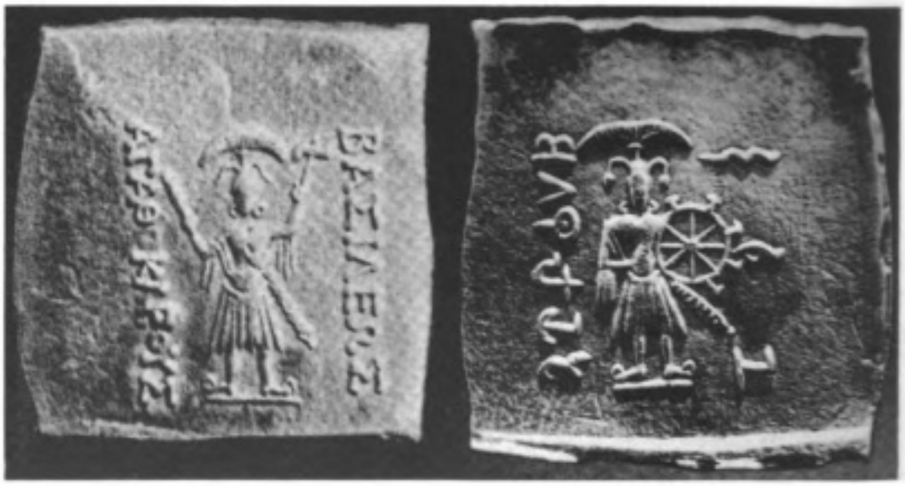
Pl. 11.3. Pair of nineteenth century brass stamps, South India (from *The Tantric Way* by A. Mookerjee and M. Khanna, fig. on p. 169)



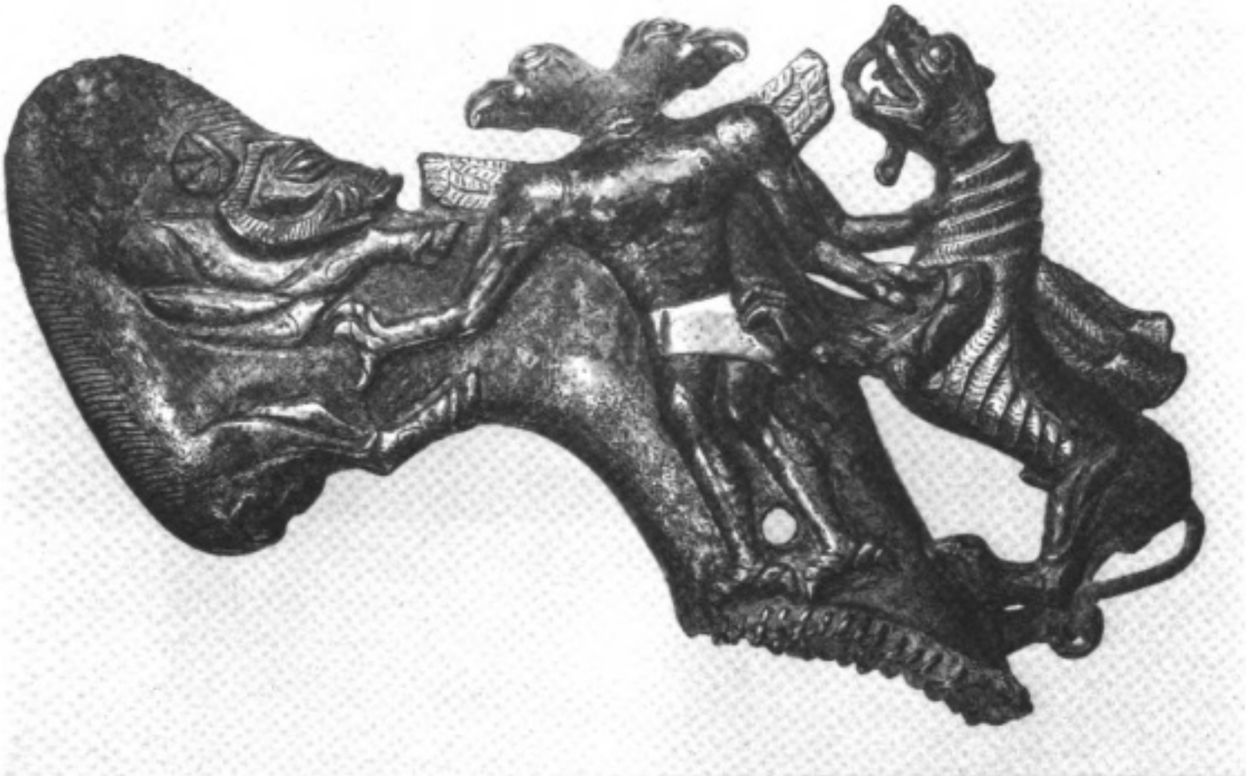
Pl. 11.4. Steatite/chlorite and limestone statuette, Afghanistan, late third or early second millennium B.C. The Metropolitan Museum of Art. Gift of the Norbert Schimmel Trust. 1989. 41 a, b (9 cm. high)



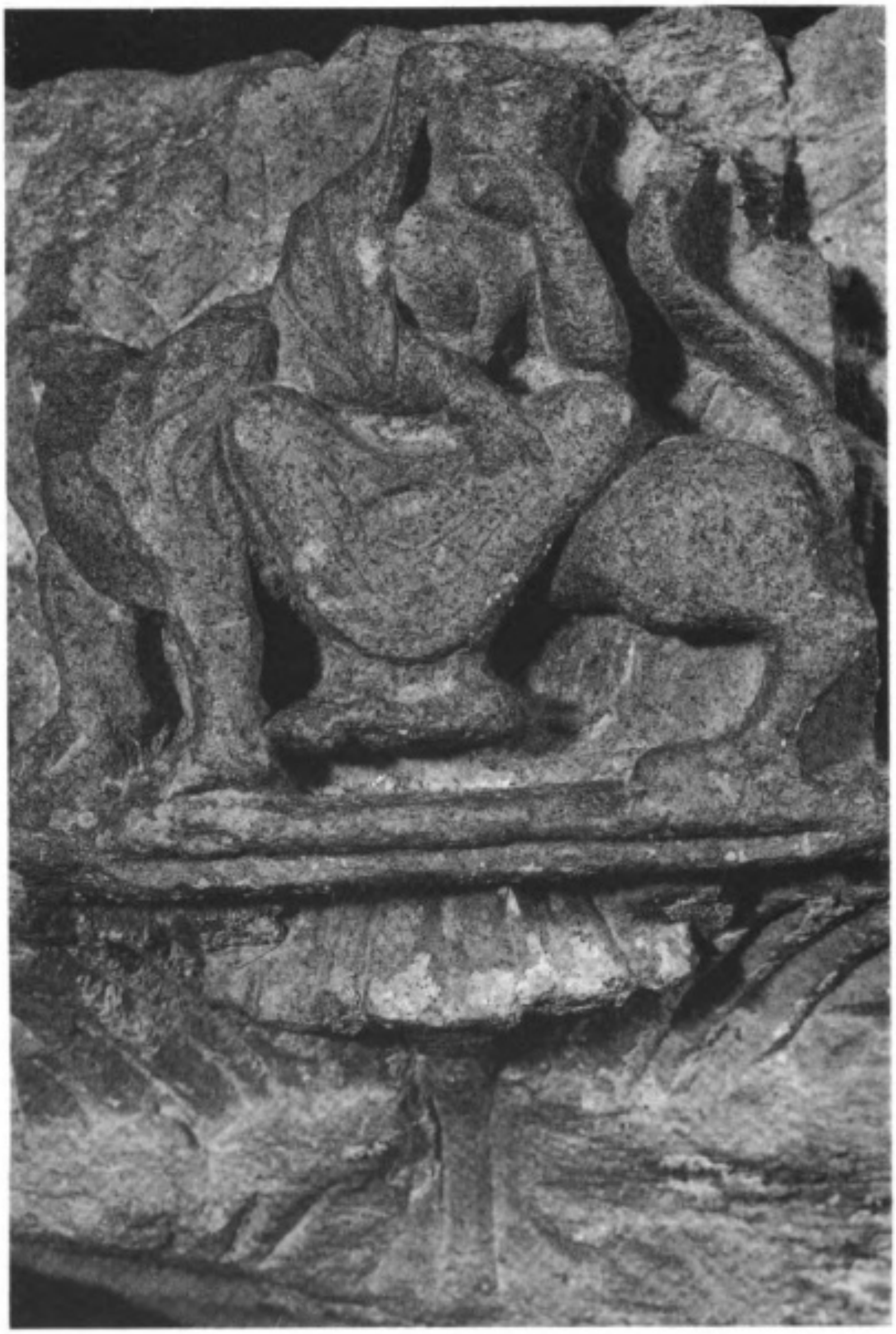
Pl. 11.5. Small bronze cosmetic container in the form of a monkey carrying a wine-skin, Afghanistan, late third or early second millennium B.C. Musée du Louvre, Paris



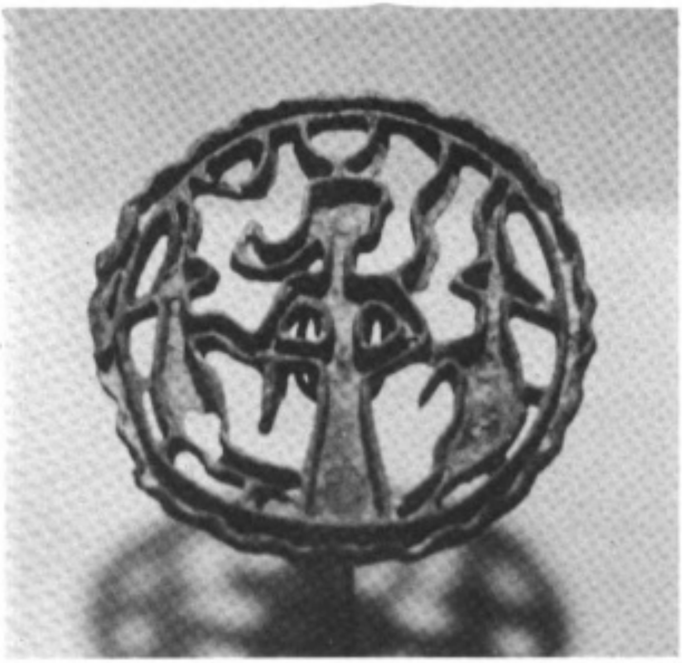
Pl. 11.6. Coin of the Indo-Greek king Agathocles from a hoard at Ai Khanum in Afghanistan, mid-second century B.C.



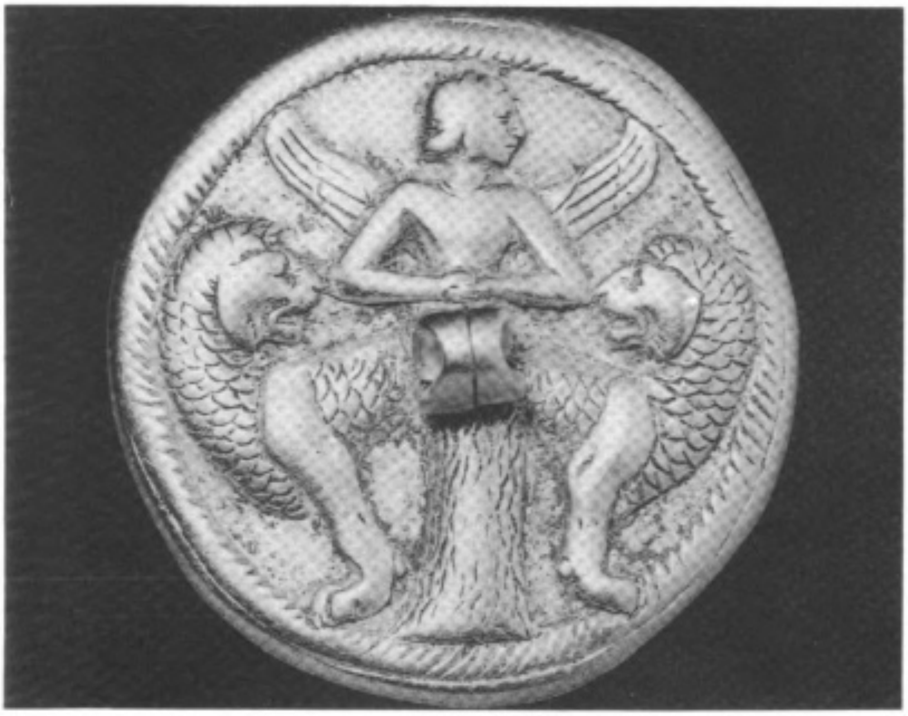
Pl. 11.7. Silver axe with gilding, North Afghanistan, nineteenth or eighteenth century B.C. The Metropolitan Museum of Art. Purchase, Harris Brisbane Dick Fund, James N. Spear and Schimmel Foundation Inc. Gifts. 1982. 5 (L. 15 cm.)



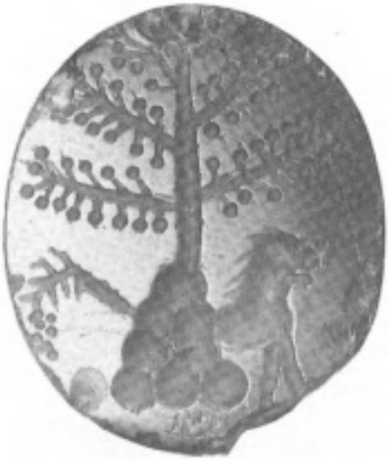
Pl. 11.8. Details of a stone capital, Swat (Pakistan), first or second century A.D. Gandhāran style, from Butkara I excavations. Muzeo Nazionale de l'Arte Orientale, Rome (photograph: courtesy of IsMEO)



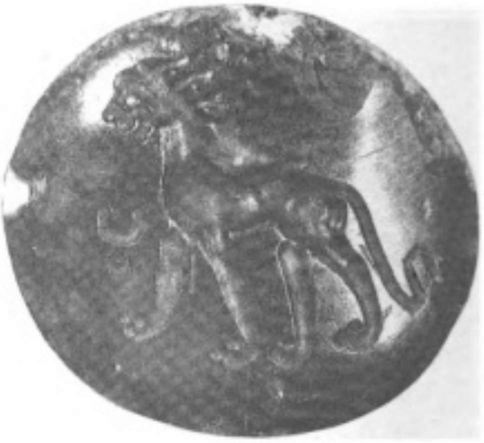
Pl. 11.9. Copper/bronze compartmented seal, Afghanistan, late third or early second millennium B.C. Private collection



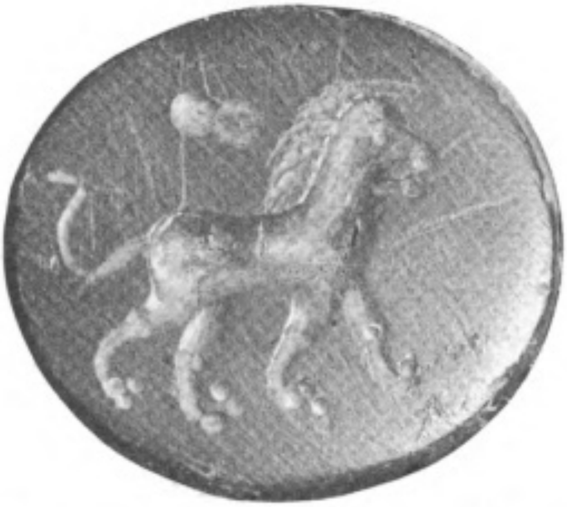
Pl. 11.10. Obverse of a gold compartmented stamp, Afghanistan, late third or early second millennium B.C. Private collection



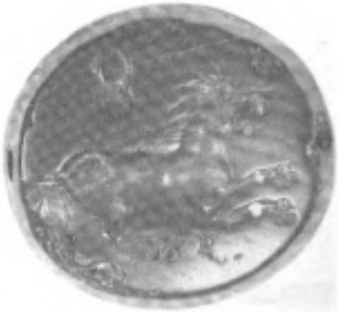
Pl. 13.1. Carnelian scaraboid, l. 2·1×1·7 cm., British Museum



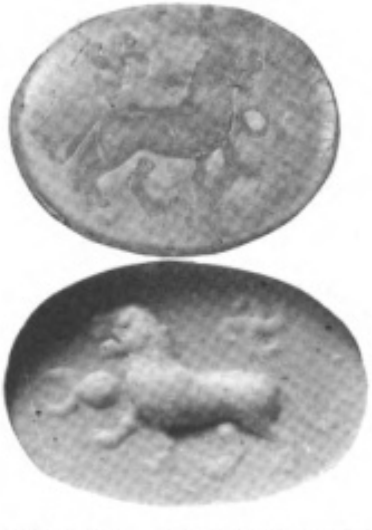
Pl. 13.2. Chalcedony scaraboid, l. 1·7×1·9 cm., British Museum



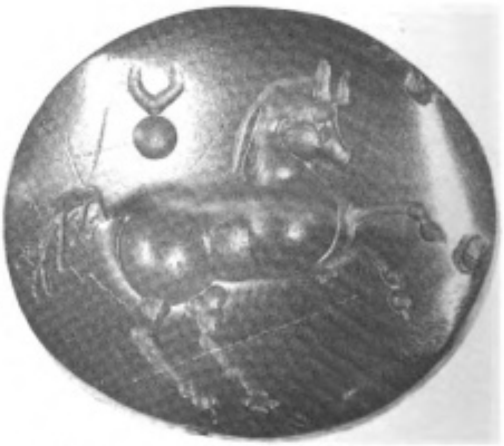
Pl. 13.3. Carnelian scaraboid, l. 1·2×1·4 cm., Peshawar Museum



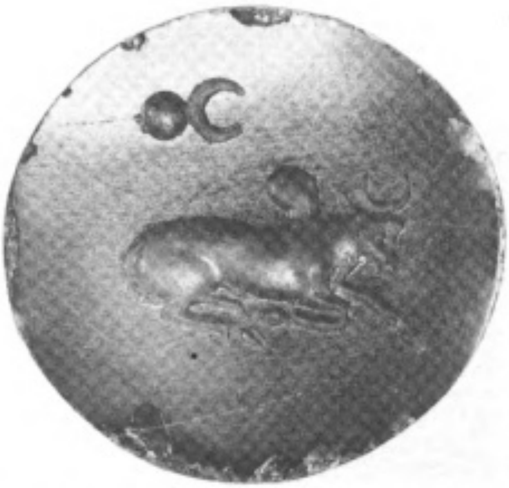
Pl. 13.4. Carnelian scaraboid, l. 1·3×1·4 cm., British Museum



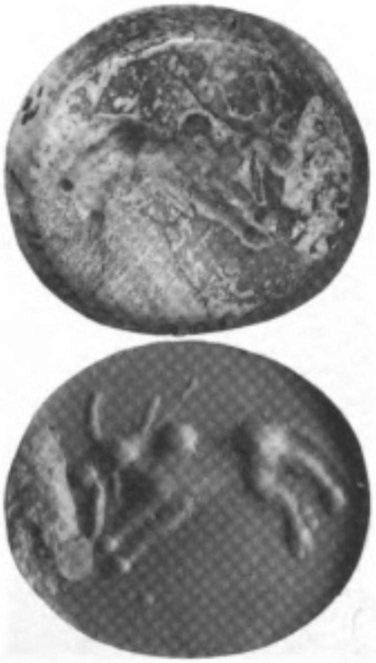
Pl. 13.5 a & b. Chalcedony scaraboid, l. 1·2×1·6 cm., British Museum



Pl. 13.6. Chalcedony scaraboid, l. 1·7×1·9 cm., British Museum

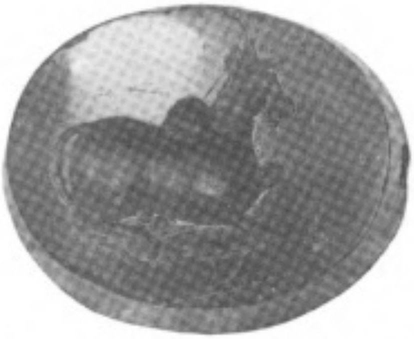


Pl. 13.7. Haematite (?) scaraboid, l. 1·9×2 cm., British Museum

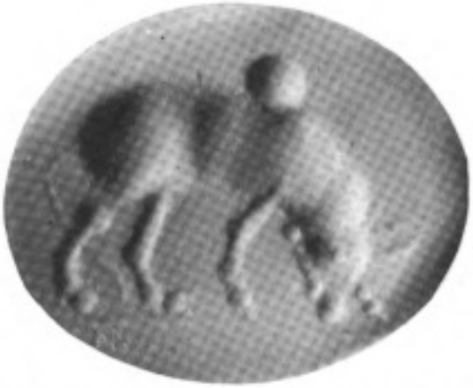


Pl. 13.8 a & b. Chalcedony scaraboid, l. 1·6×1·4 cm., British Museum

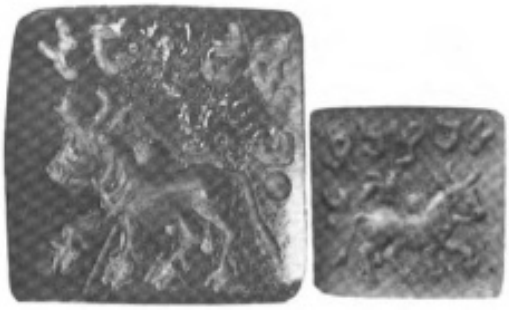
Pl. 13.9. Carnelian scaraboid, l. 1·3×1·6 cm., Peshawar Museum



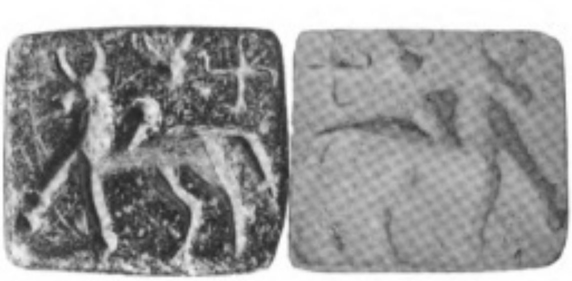
Pl. 13.10. Chalcedony scaraboid, l. 1·2×1·5 cm., British Museum



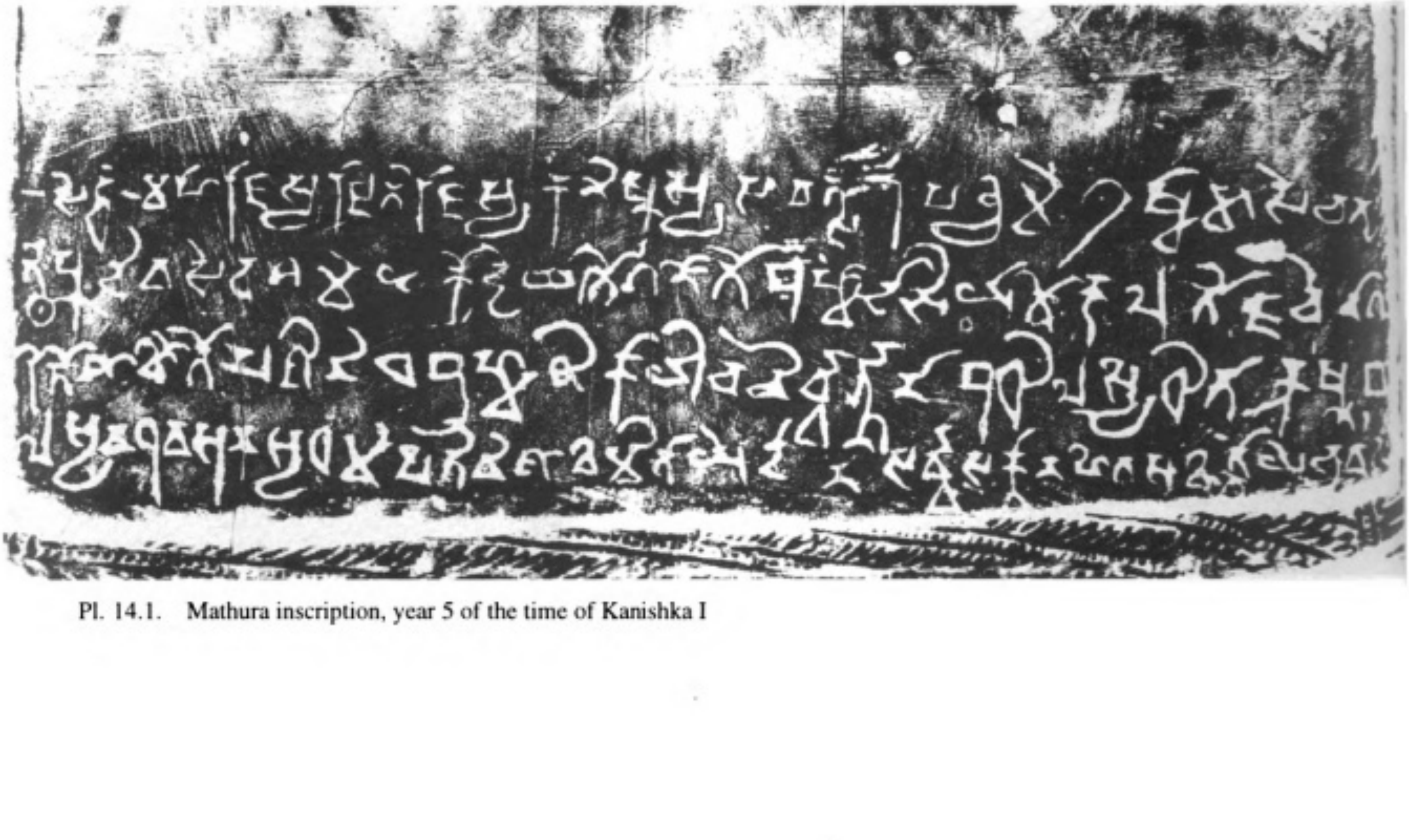
Pl. 13.11. Chalcedony scaraboid, l. 1·7×2 cm., Victoria and Albert Museum



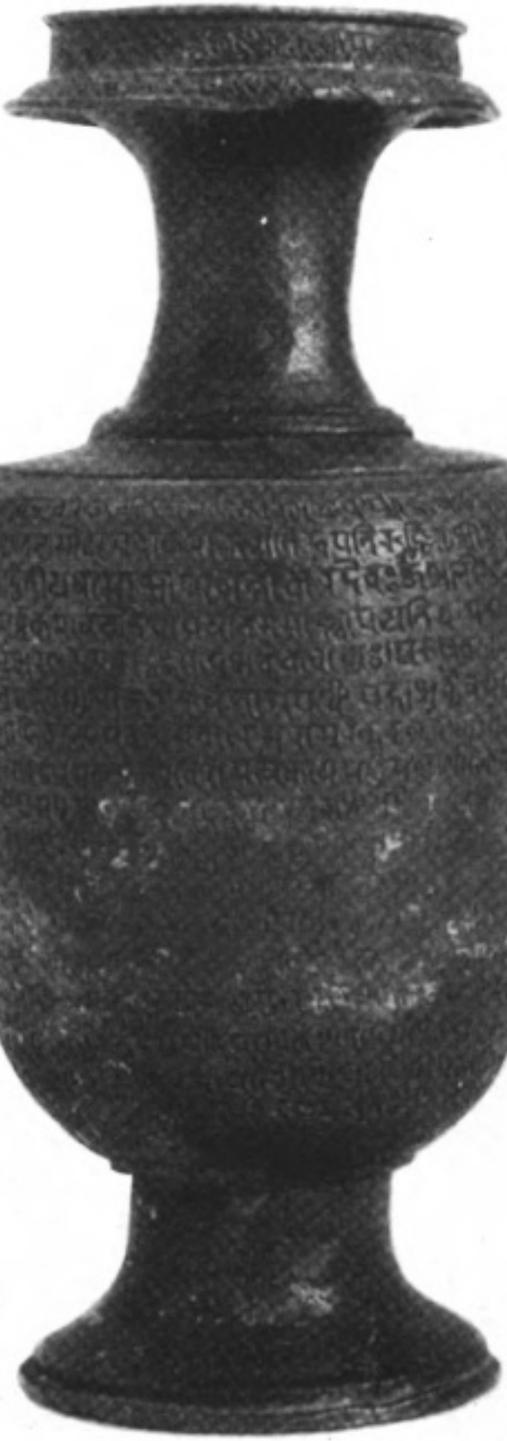
Pl. 13.12 a & b. Chalcedony stamp-seal, l. 1×1 cm., Peshawar Museum



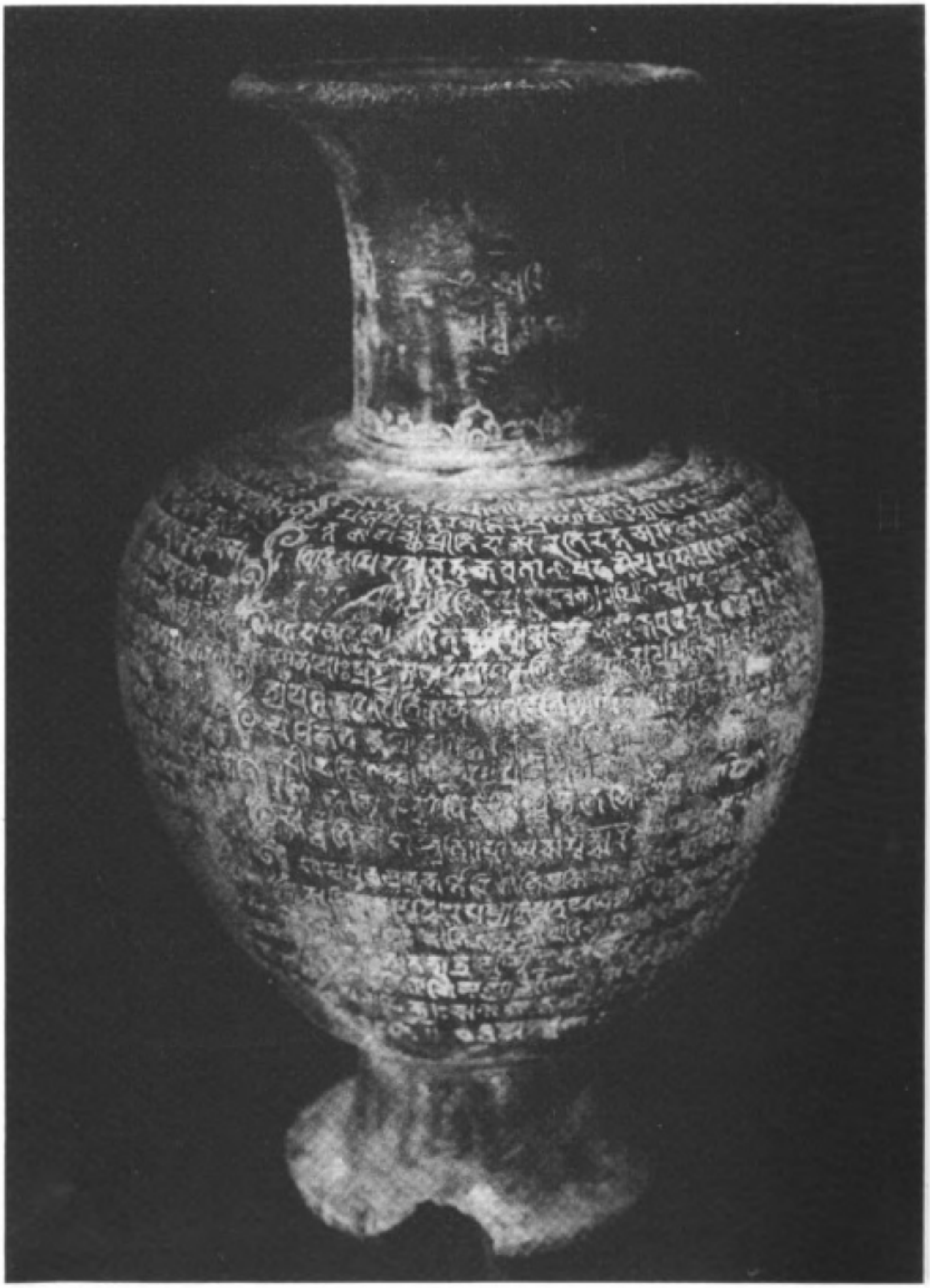
Pl. 13.13 a & b. Steatite (?) stamp-seal, l. 2·4×2·7 cm., Peshawar Museum



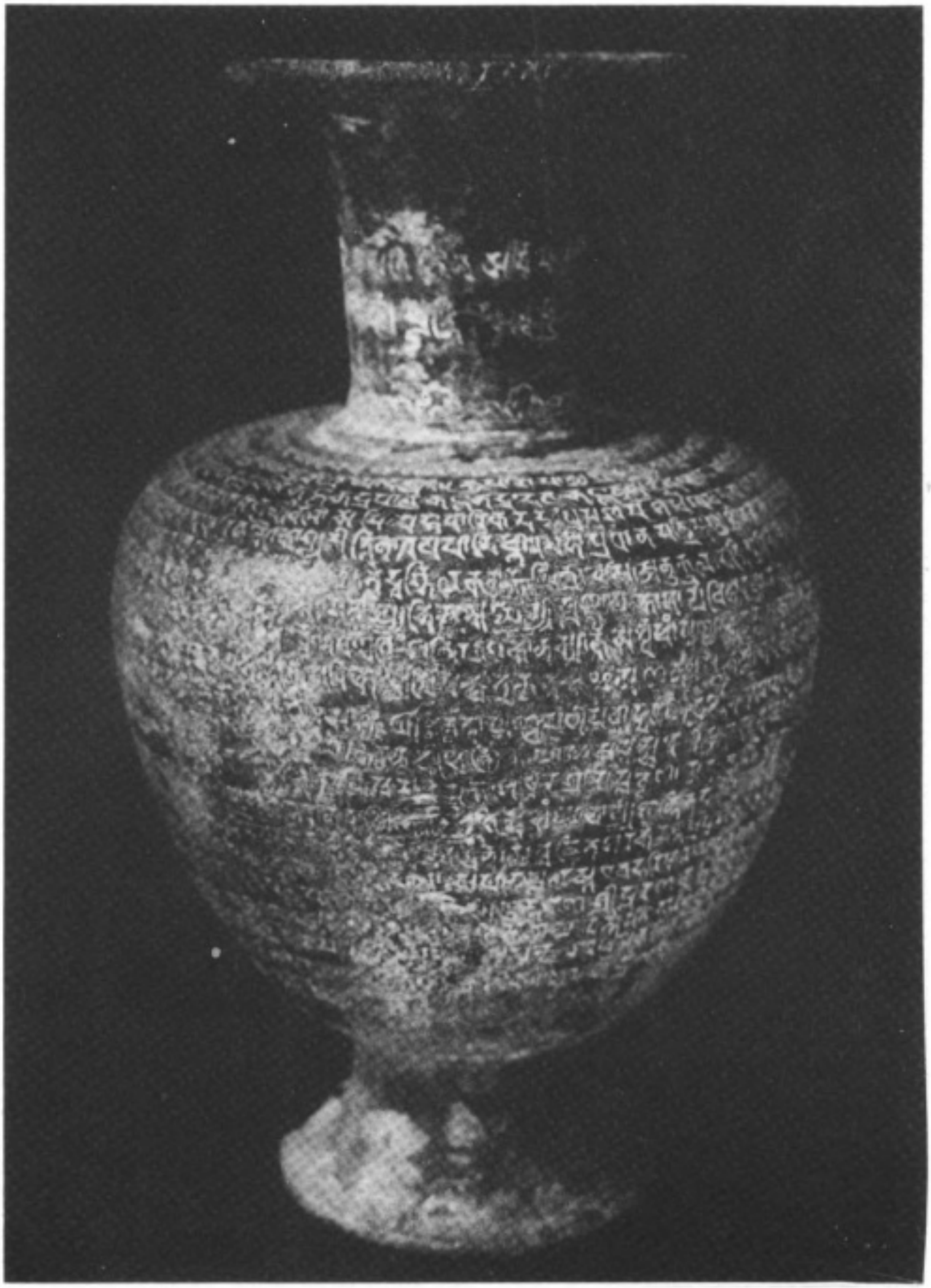
Pl. 14.1. Mathura inscription, year 5 of the time of Kanishka I



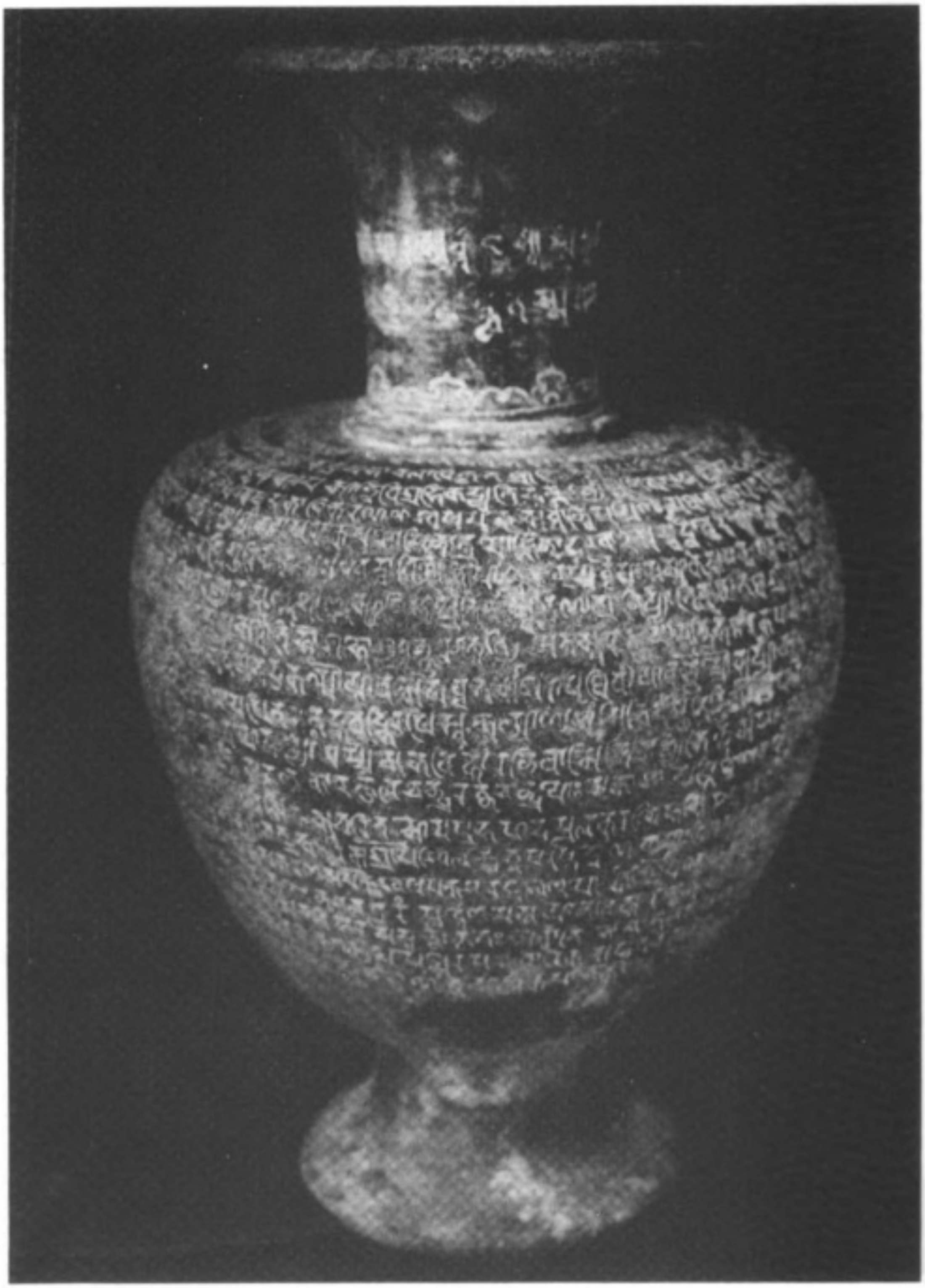
Pl. 16.1. Inscribed metal vase, most probably from Chittagong (Bangladesh), now in the collection of Sam Fogg of London (photo courtesy: Sotheby's London)



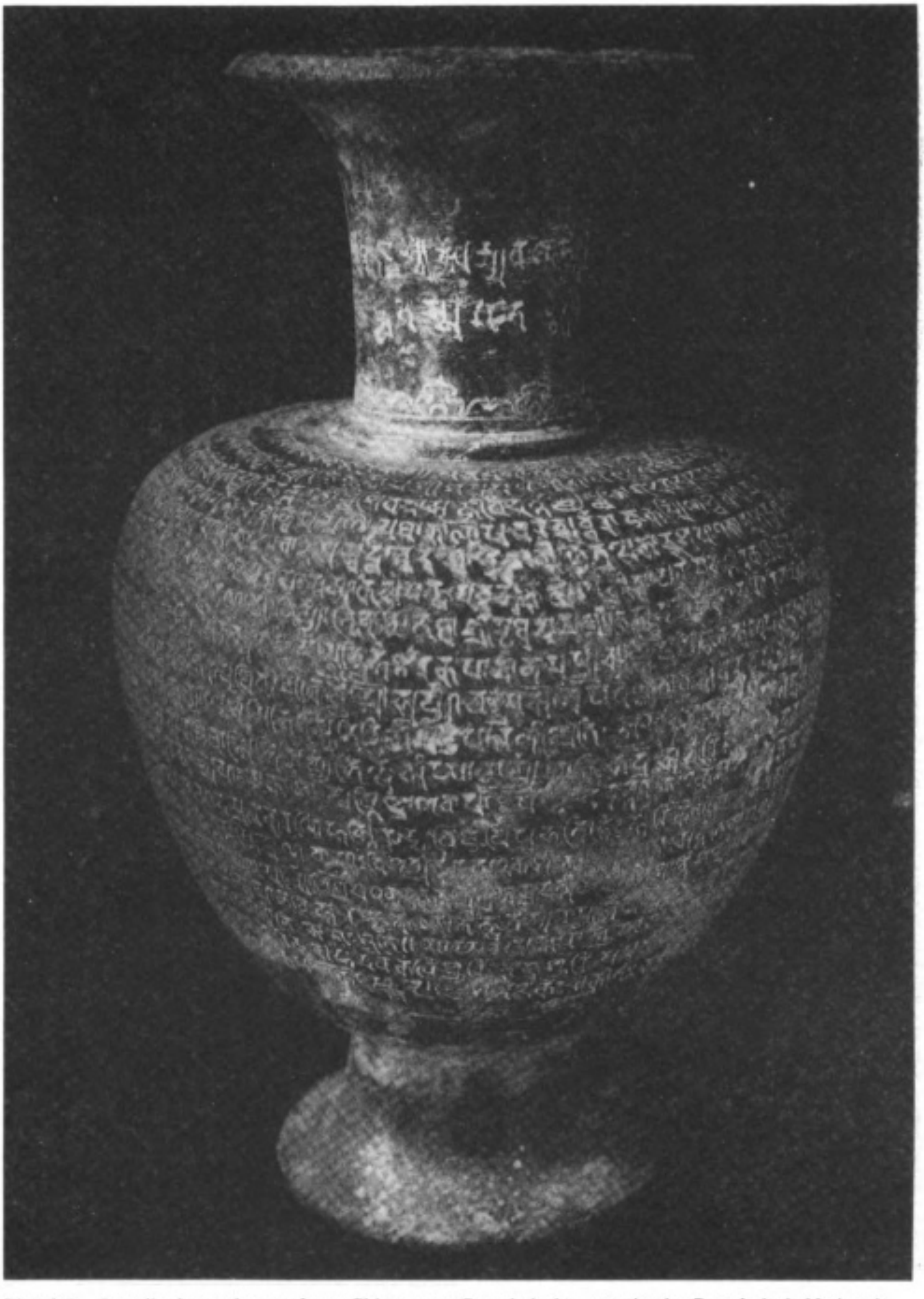
Pl. 16.2. Inscribed metal vase from Chittagong (Bangladesh), now in the Bangladesh National Museum, Dhaka (copyright of photograph: Bangladesh National Museum)



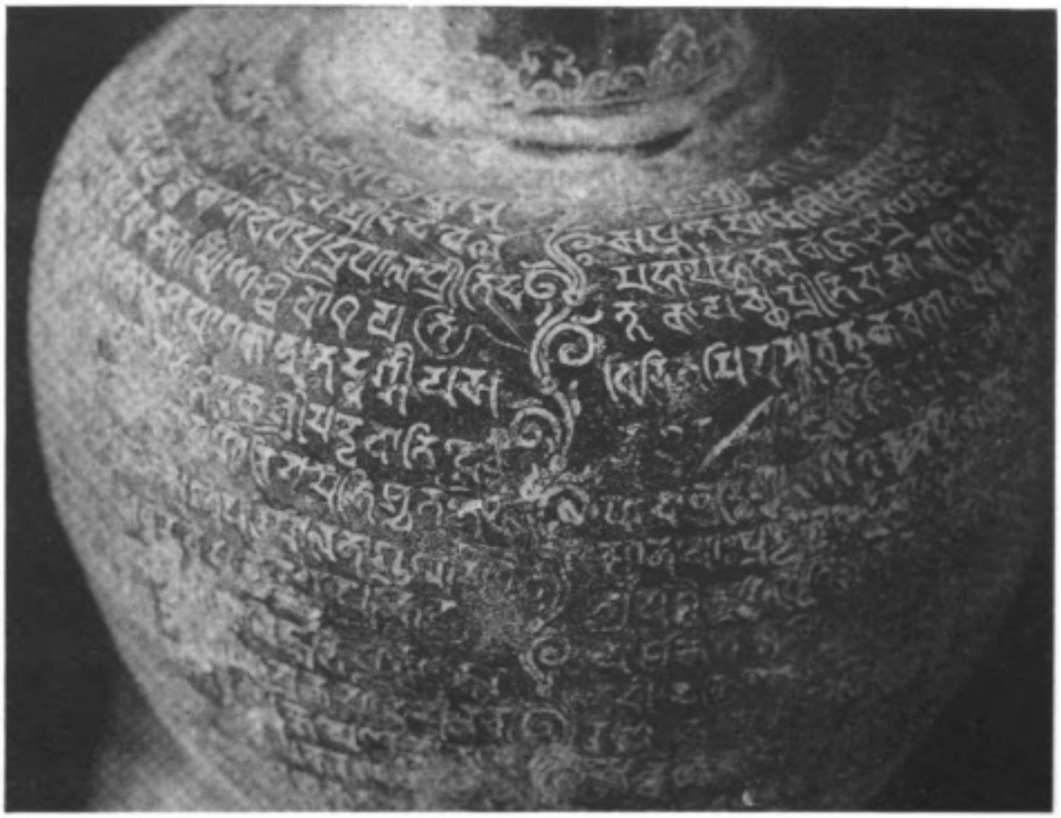
Pl. 16.3. Inscribed metal vase from Chittagong (Bangladesh), now in the Bangladesh National Museum, Dhaka (copyright of photograph: Bangladesh National Museum)



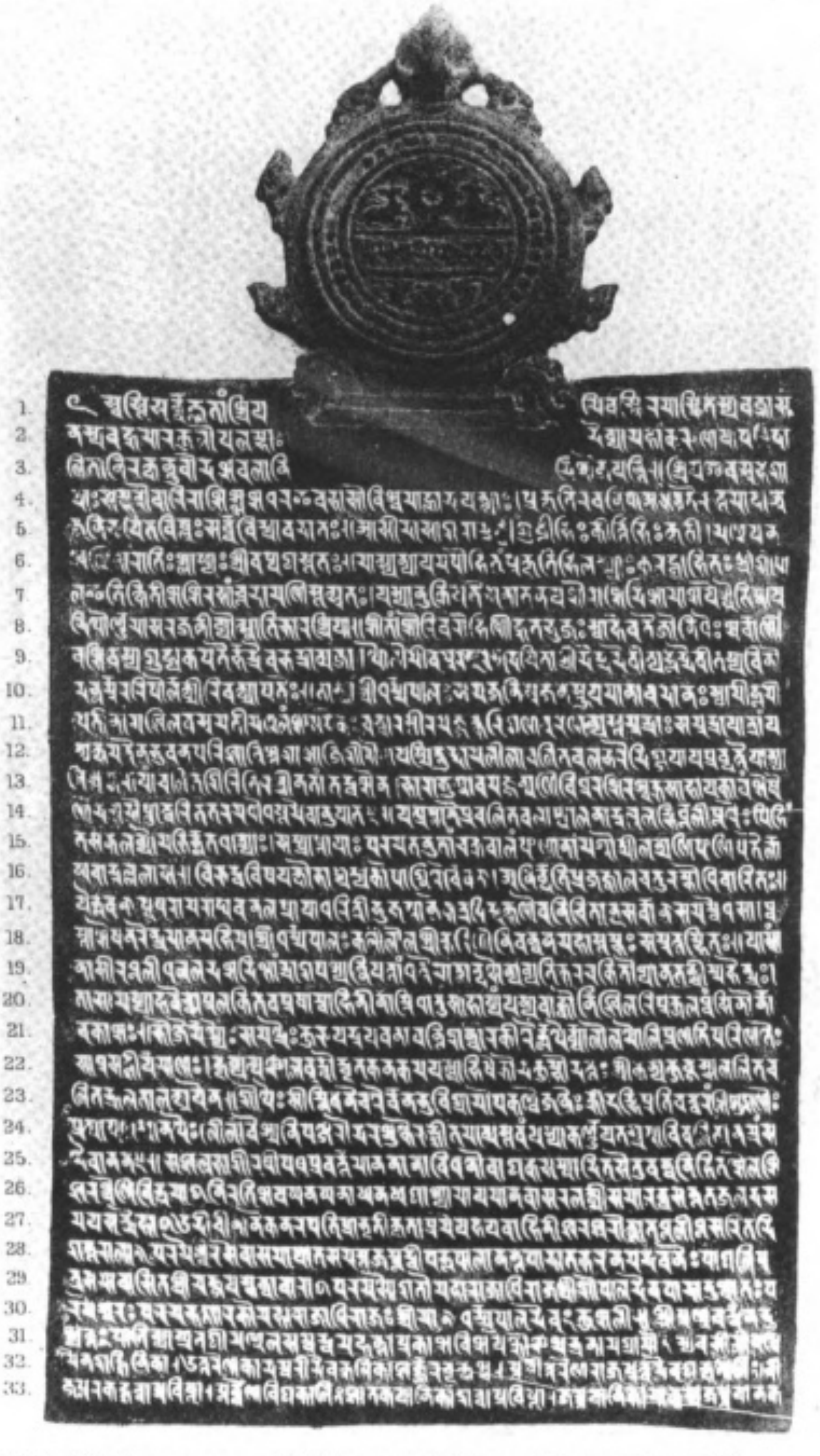
Pl. 16.4. Inscribed metal vase from Chittagong (Bangladesh), now in the Bangladesh National Museum, Dhaka (copyright of photograph: Bangladesh National Museum)



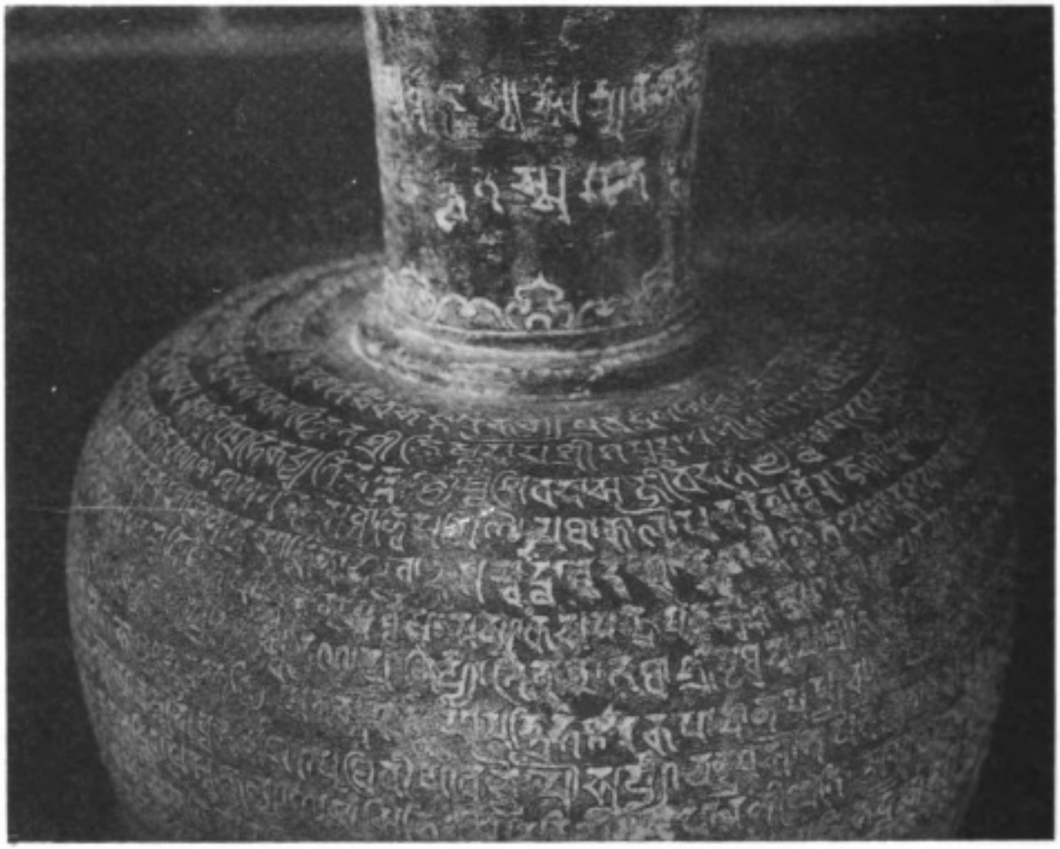
Pl. 16.5. Inscribed metal vase from Chittagong (Bangladesh), now in the Bangladesh National Museum, Dhaka (copyright of photograph: Bangladesh National Museum)



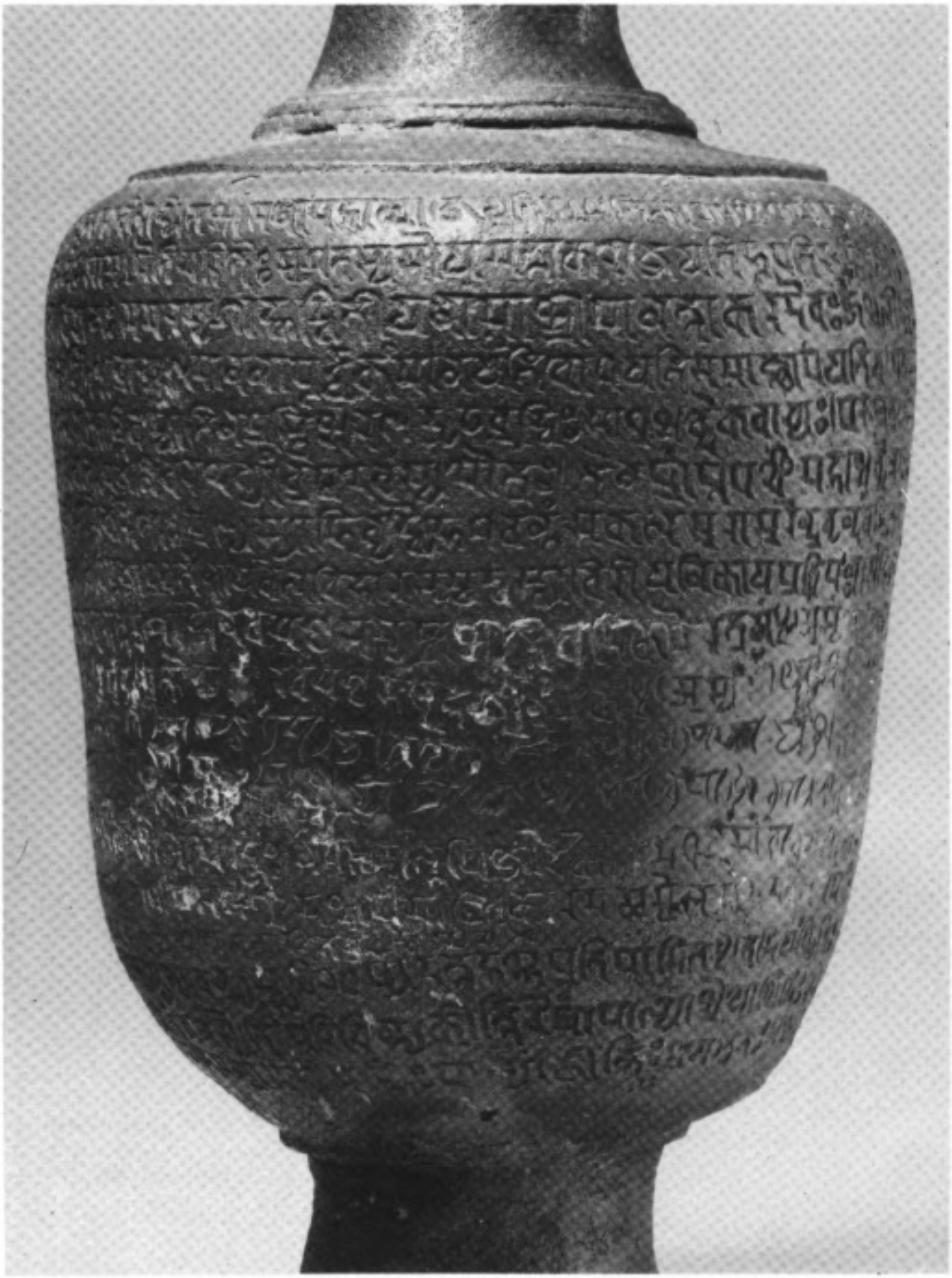
Pl. 16.6. Partial view of the inscribed metal vase from Chittagong, now in the Bangladesh National Museum, Dhaka (copyright of photograph: Bangladesh National Museum)



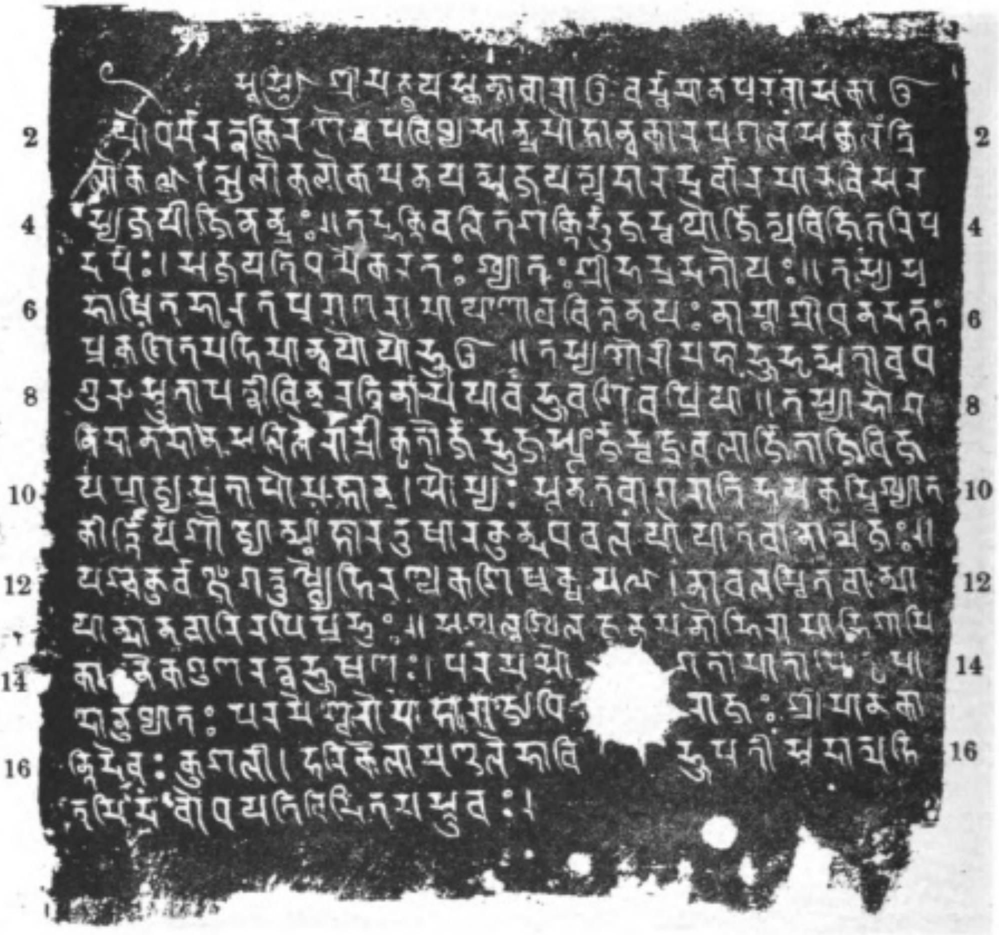
Pl. 16.7. Khalimpur copper plate (obverse) of Dharmapāla, regnal year 32 (published in *JASB*, Vol. LXIII-1, p. 39; photo courtesy: Archaeological Survey of India)



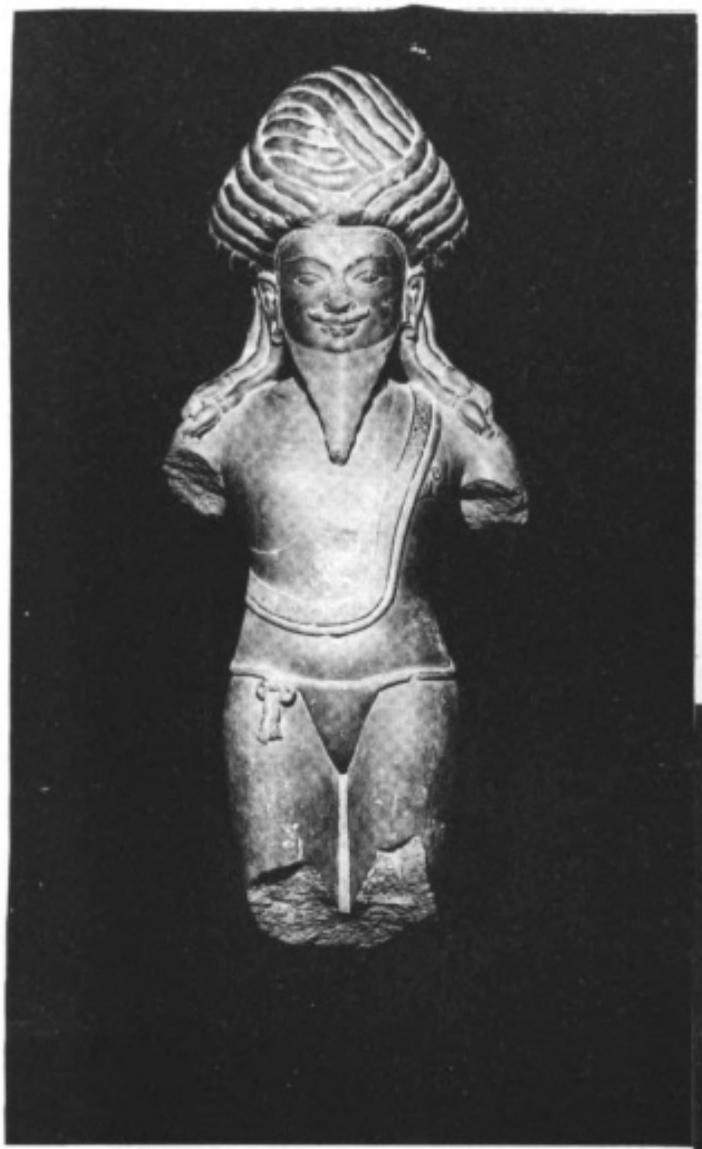
Pl. 16.8. Partial view of the inscribed vase from Chittagong, now in the Bangladesh National Museum, Dhaka (copyright of photograph: Bangladesh National Museum)



Pl. 16.9. Partial view of the inscribed vase in the Sam Fogg collection, London (photo courtesy: Sotheby's London, through Pratapaditya Pal)

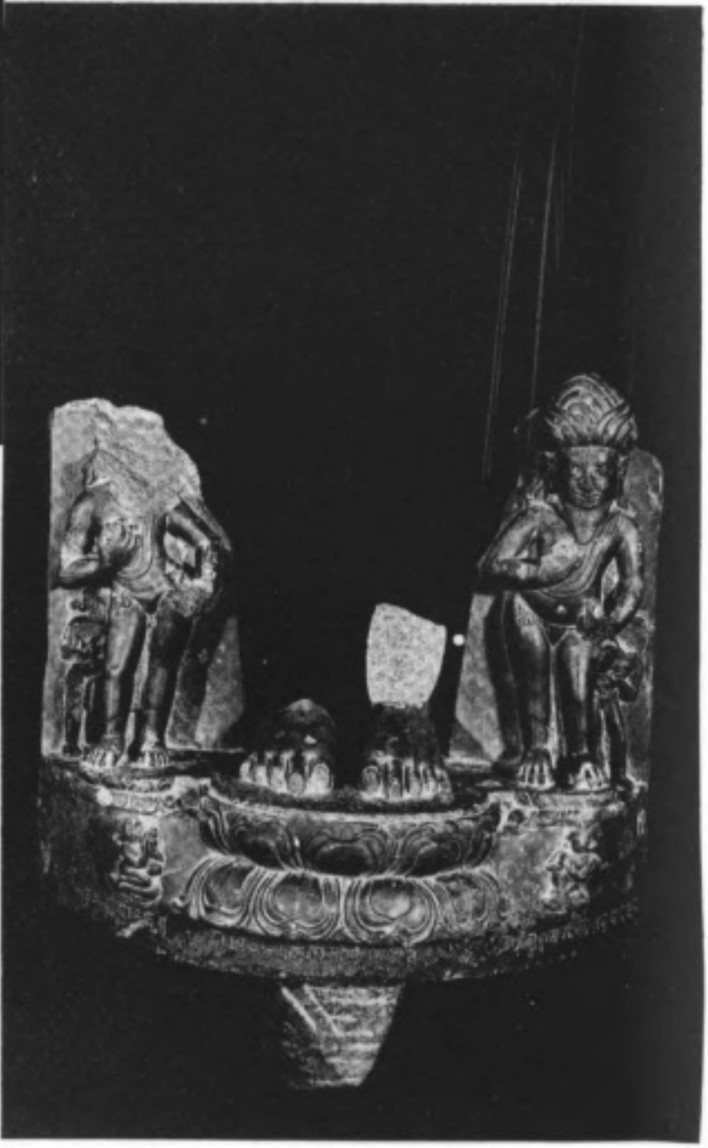


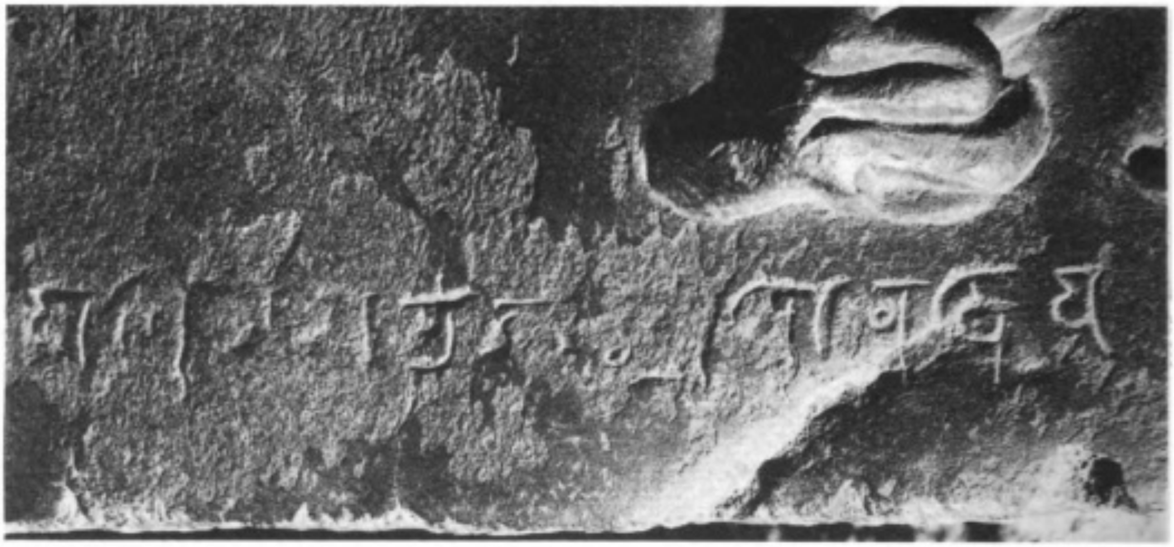
Pl. 16.10. Chittagong copper plate (incomplete) of Kāntideva (published in the *Epigraphia Indica*, Vol. XXVI, pp. 313-18; photo courtesy: Archaeological Survey of India



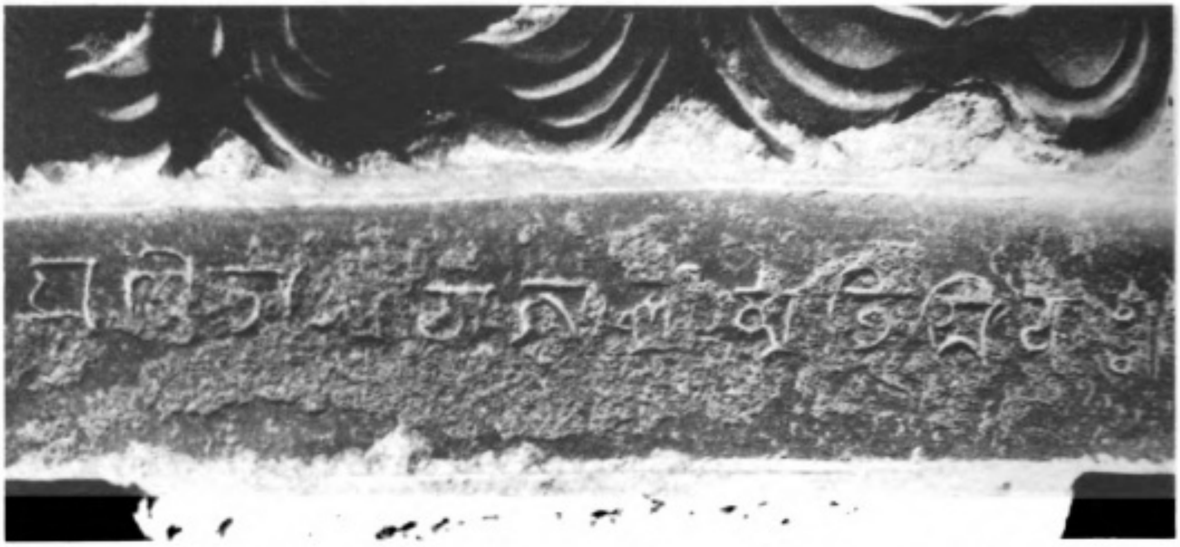
Pl. 19.1. Statue of Mūrtiśiva with the lower part of the legs broken, now in Asutosh Museum (copyright: Asutosh Museum of Indian Art, Calcutta University)

Pl. 19.2. Pedestal with the feet of Mūrtiśiva and two other ascetics, flanking Mūrtiśiva, now in Asutosh Museum (copyright: Asutosh Museum of Indian Art, Calcutta University)

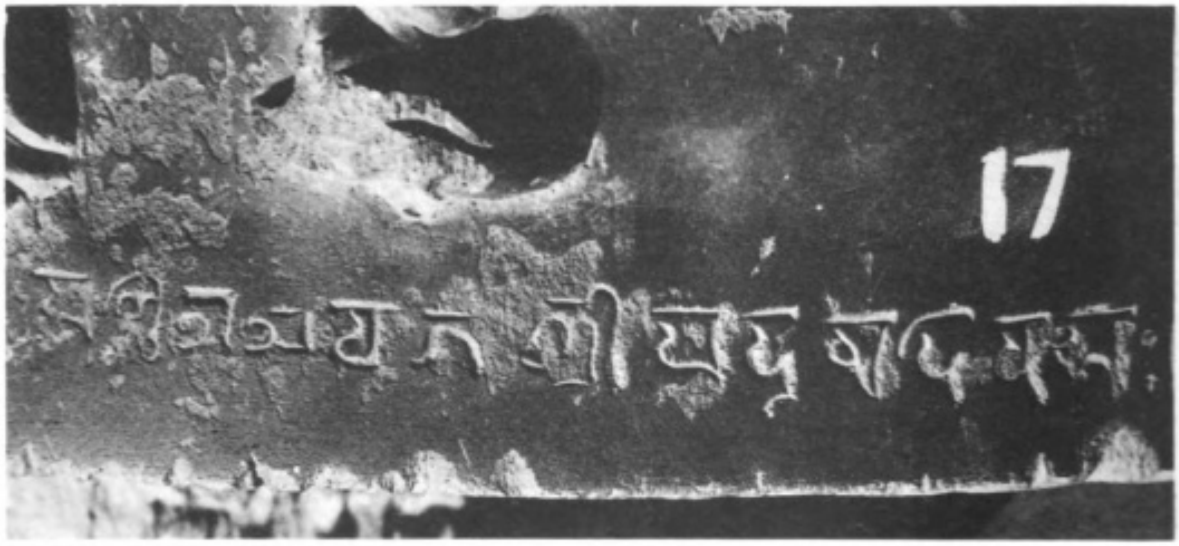




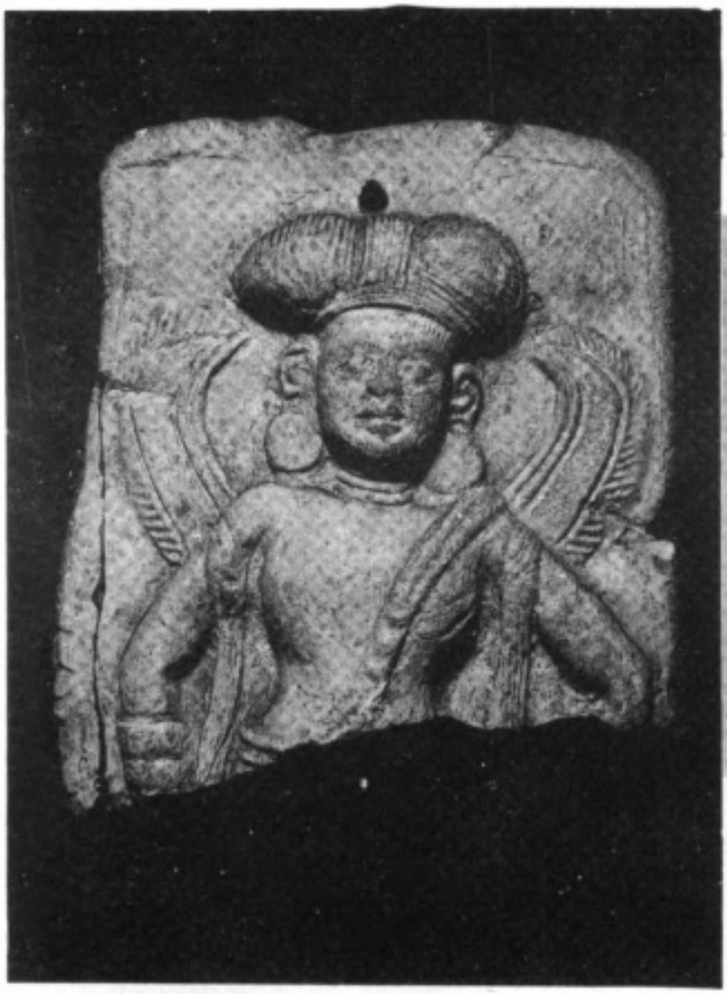
Pl. 19.3. Inscribed label giving the name of the ascetic figure on the dexter (copyright: Asutosh Museum of Indian Art, Calcutta University)

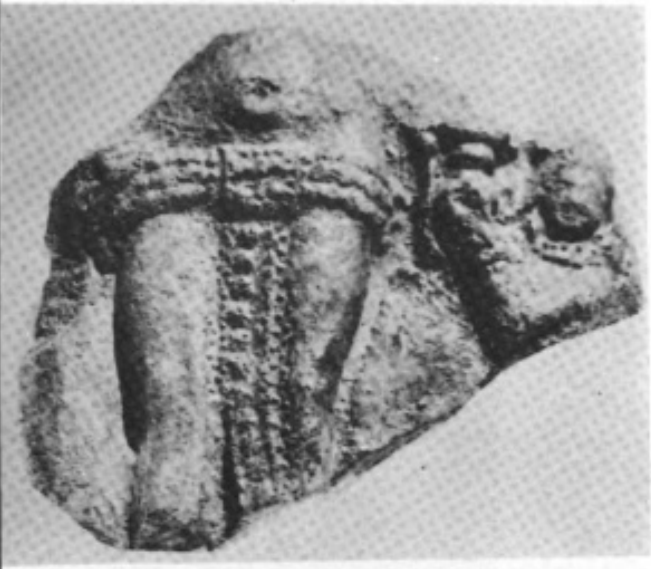


Pl. 19.4. Inscribed label for Mūrtiśiva (copyright: Asutosh Museum of Indian Art, Calcutta University)



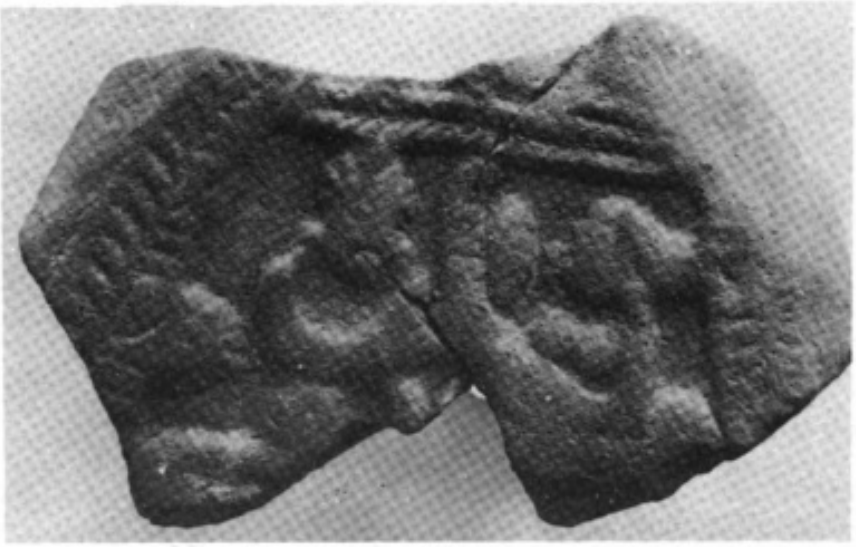
Pl. 19.5. Inscribed label for the figure on the sinister (copyright: Asutosh Museum of Indian Art, Calcutta University)



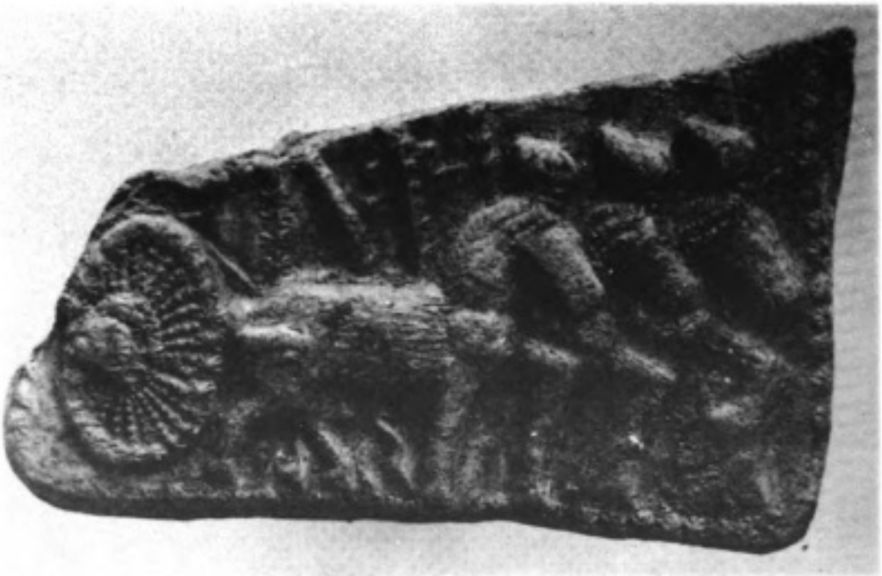


Pl. 20.2. Lower part of a terracotta female, Mahasthangarh (copyright: Bangladesh National Museum, Dhaka)

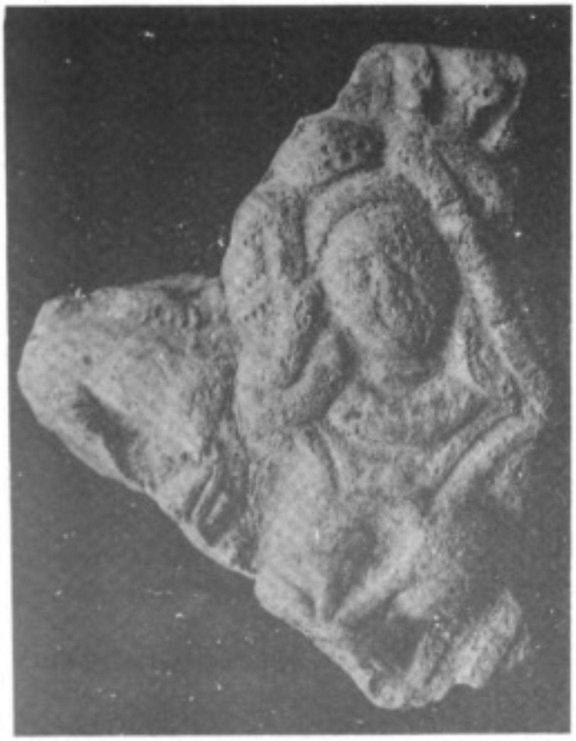
Pl. 20.1. Terracotta winged figure, Chandraketugarh (copyright: Asutosh Museum of Indian Art, Calcutta University)



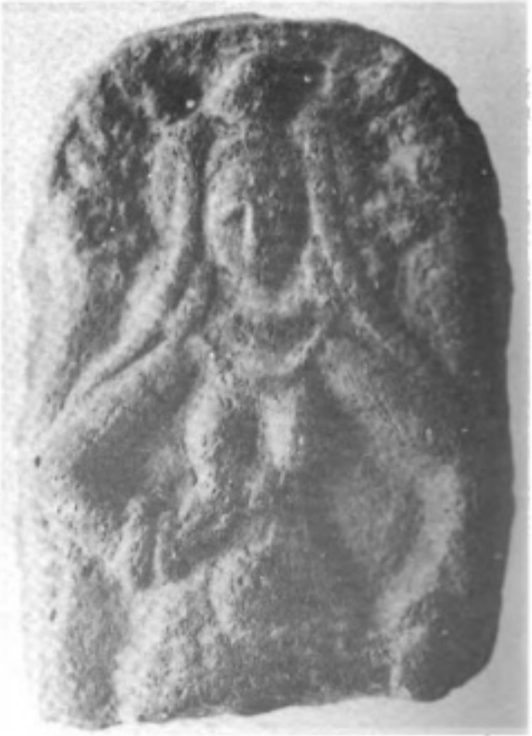
Pl. 20.3. Terracotta musician couple, Mahasthangarh (copyright: Directorate of Archaeology and Museums, Bangladesh)



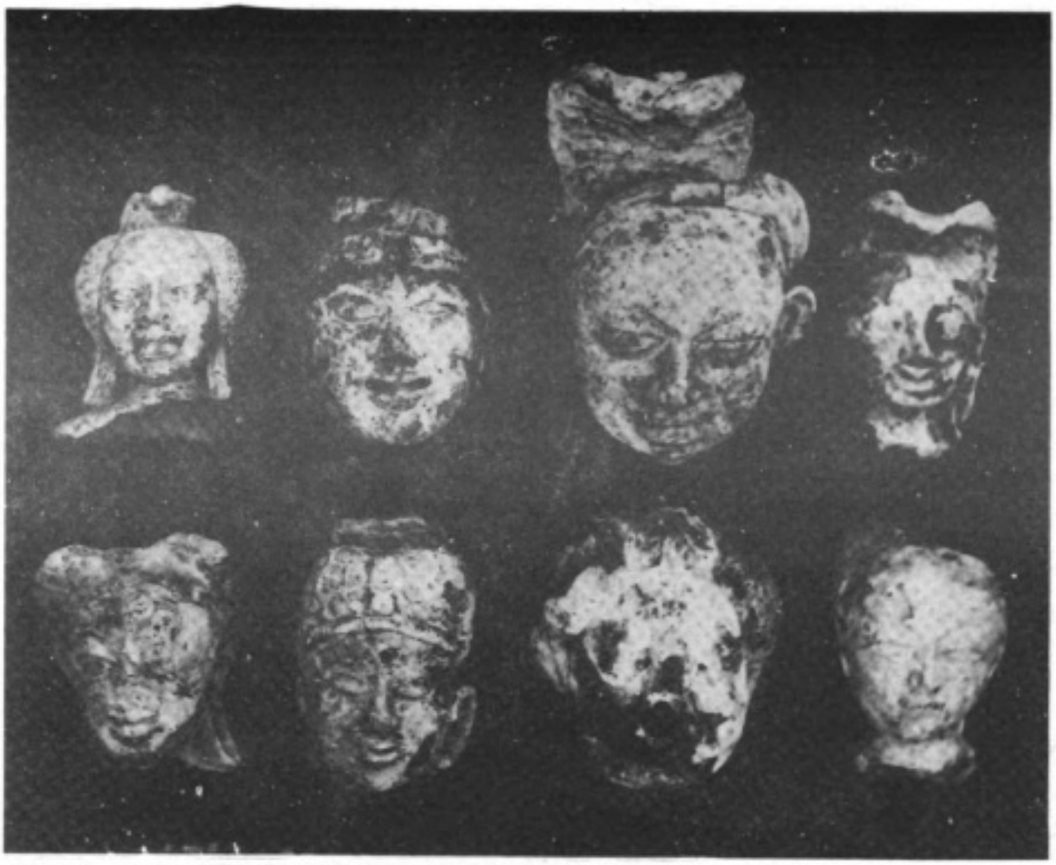
Pl. 20.4. Terracotta chariot drawn by horses, Mahasthangarh (copyright: Bangladesh National Museum, Dhaka)



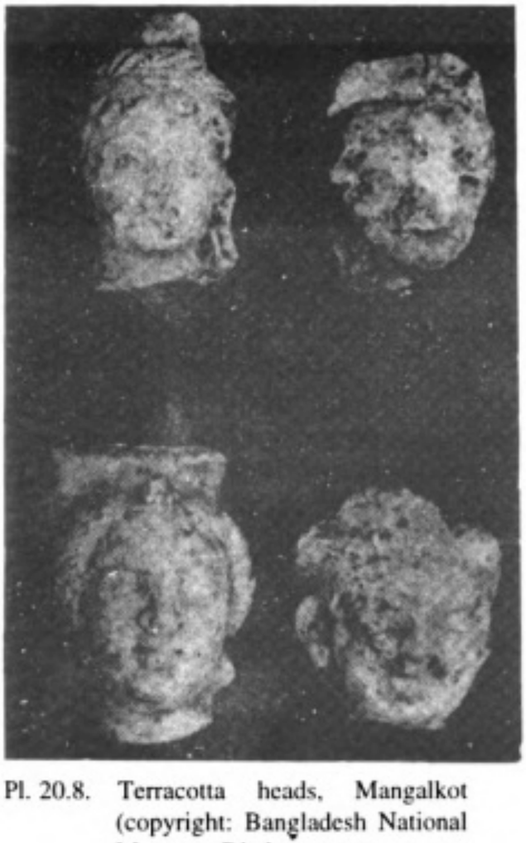
Pl. 20.5. Terracotta fragmentary plaque with the relief of the upper part of a female, Mahasthangarh (copyright: Directorate of Archaeology and Museums, Bangladesh)



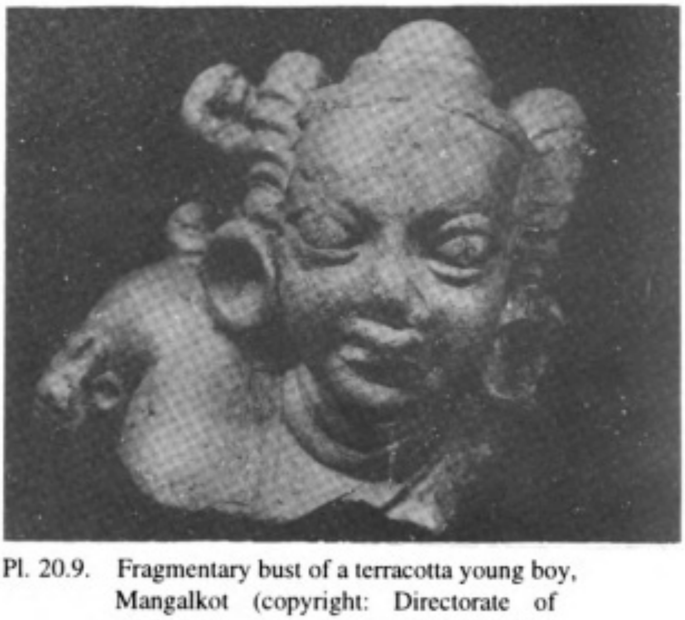
Pl. 20.6. Fragment of a terracotta plaque with the figure of a *yakshī*, Mahasthangarh (copyright: Bangladesh National Museum, Dhaka)



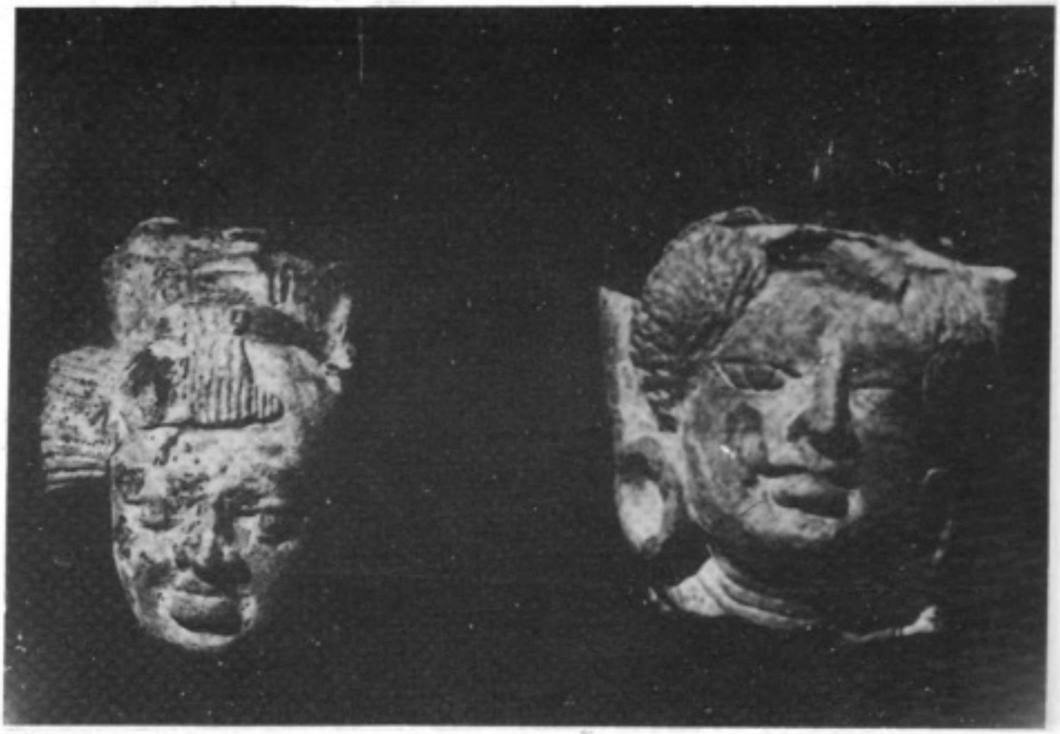
Pl. 20.7. Terracotta heads, Mangalkot (copyright: Directorate of Archaeology and Museums, Bangladesh)



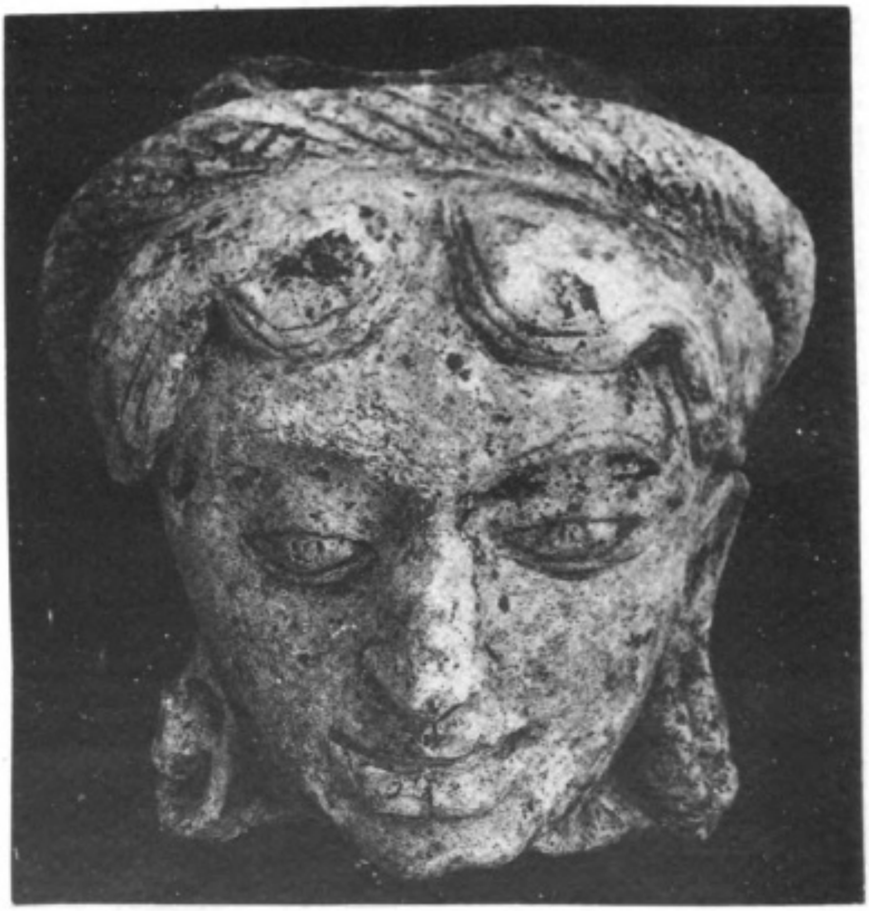
Pl. 20.8. Terracotta heads, Mangalkot (copyright: Bangladesh National Museum, Dhaka)



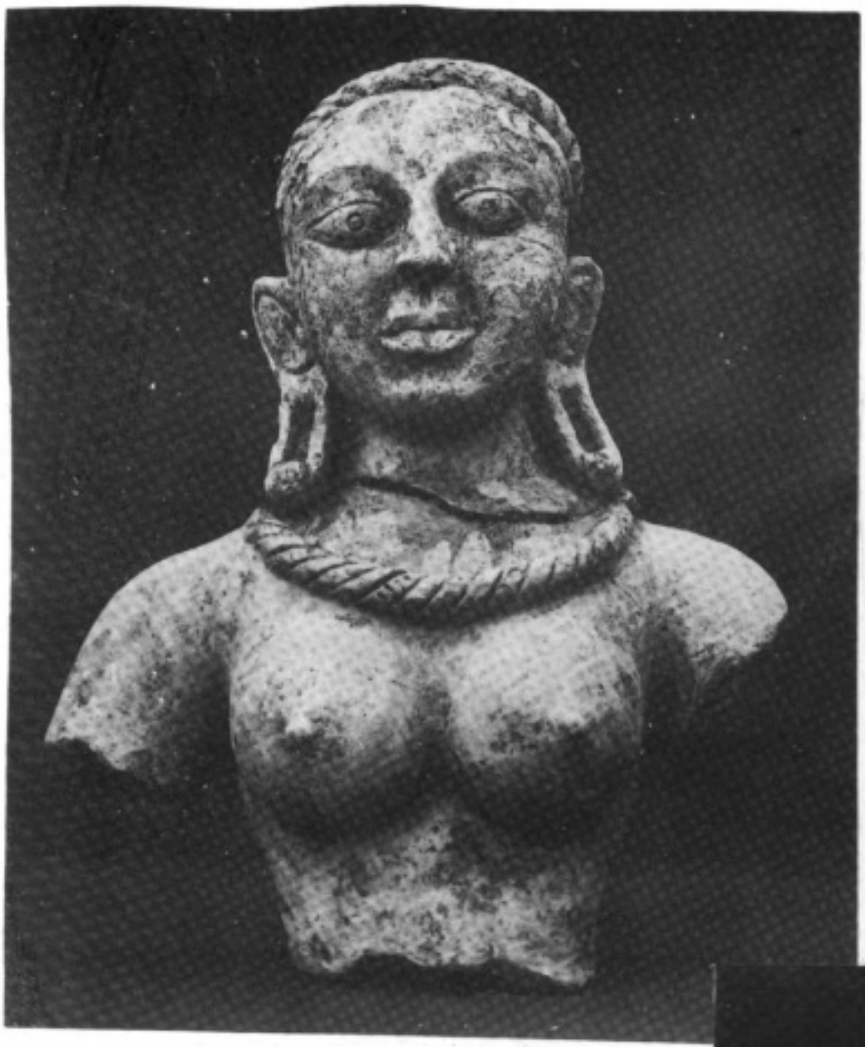
Pl. 20.9. Fragmentary bust of a terracotta young boy, Mangalkot (copyright: Directorate of Archaeology and Museums, Bangladesh)



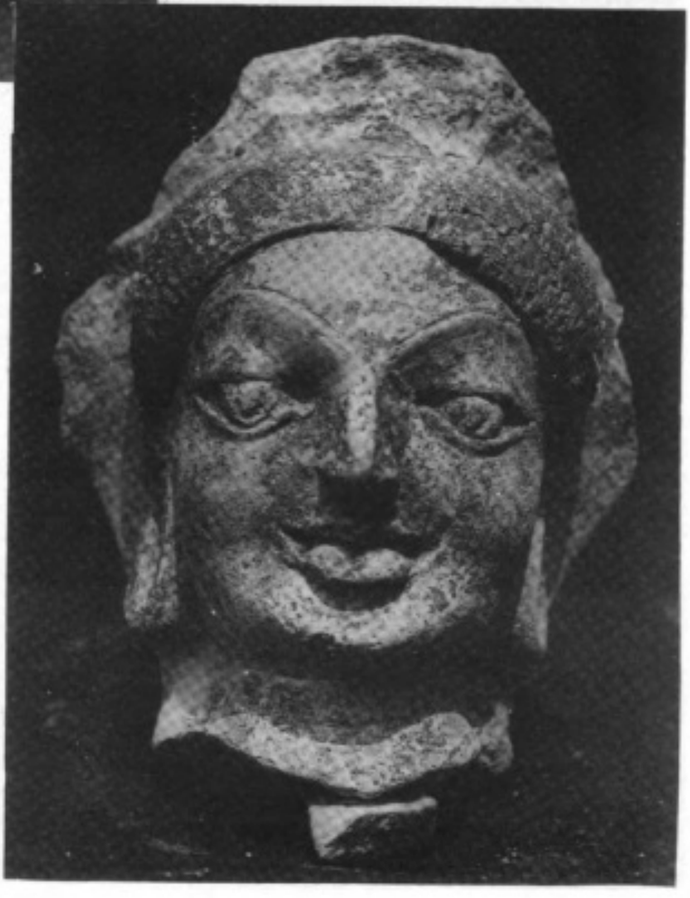
Pl. 20.10. Terracotta heads, Mangalkot (copyright: Directorate of Archaeology and Museums, Bangladesh)



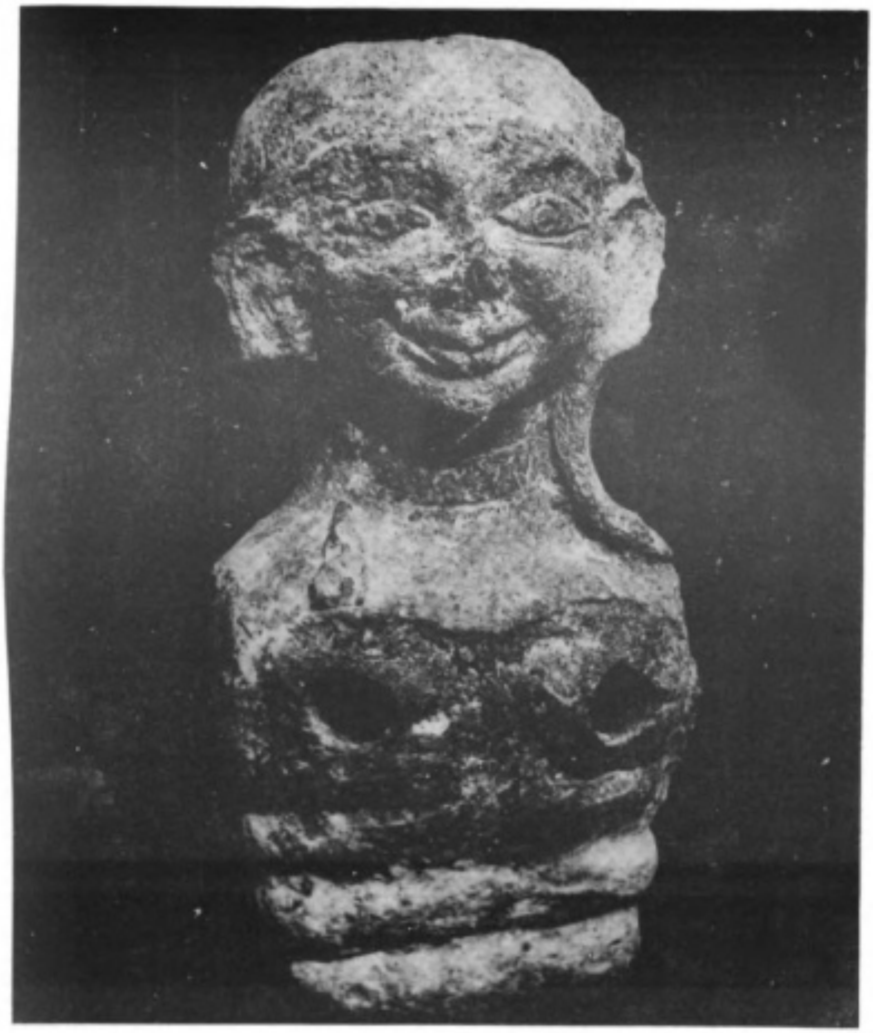
Pl. 20.11. Terracotta head, Mangalkot (copyright: Directorate of Archaeology and Museums, Bangladesh)



Pl. 20.12. Bust of a terracotta female, Mangalkot (copyright: Directorate of Archaeology and Museums, Bangladesh)

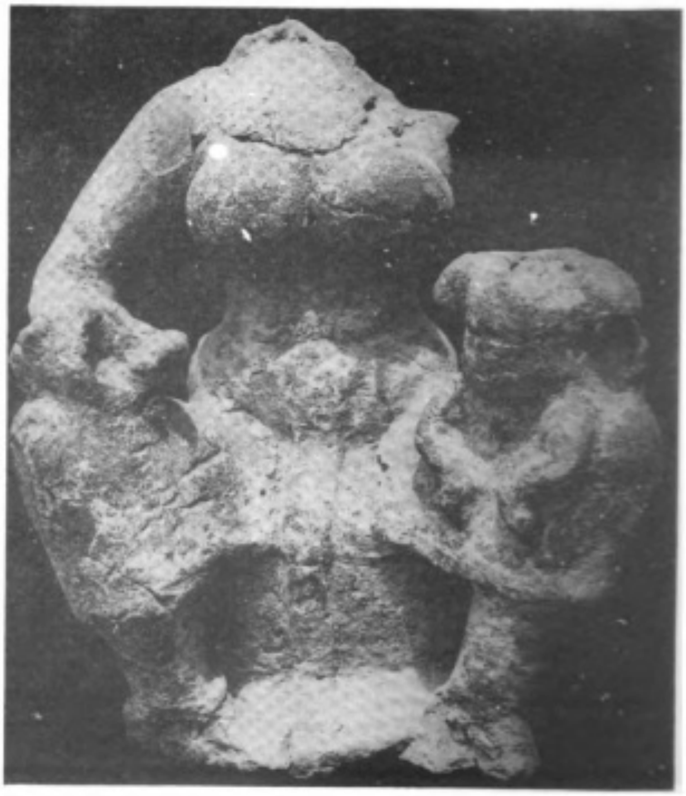


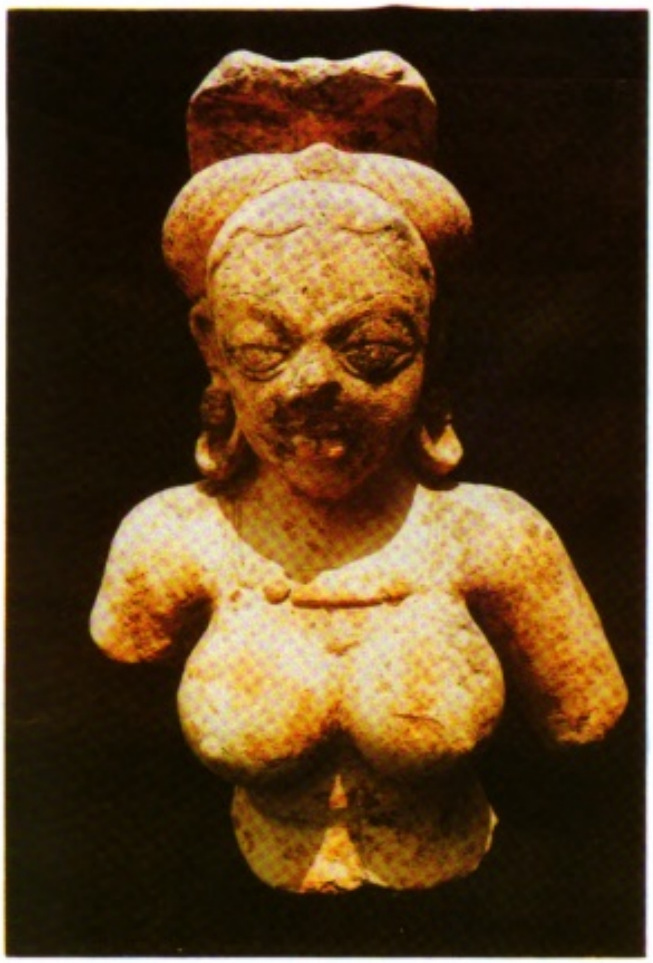
Pl. 20.13. Terracotta head, Mangalkot, in the Mahasthangarh Museum (copyright: Directorate of Archaeology and Museums, Bangladesh)



Pl. 20.14. Terracotta grotesque figure, Mangalkot (copyright: Directorate of Archaeology and Museums, Bangladesh)

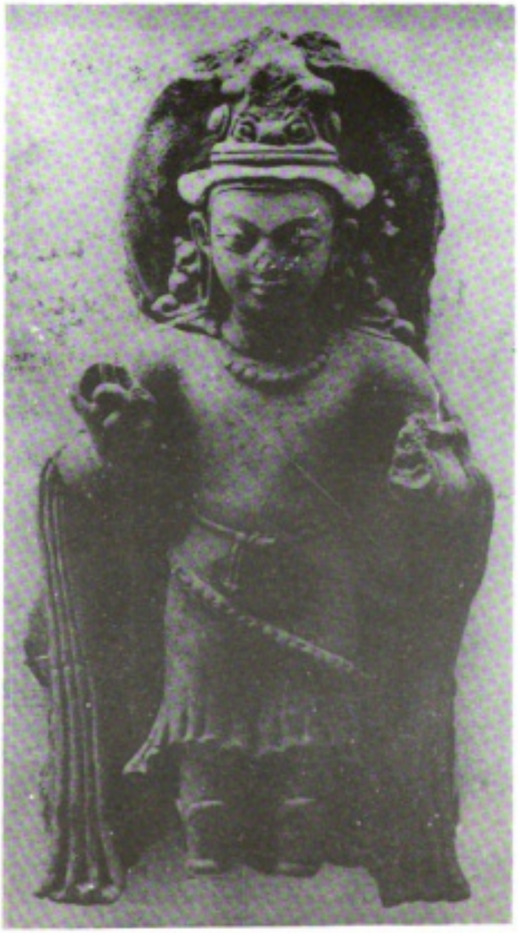
Pl. 20.15. Terracotta mother with a child, Mangalkot, in the Mahasthangarh Museum (copyright: Directorate of Archaeology and Museums, Bangladesh)

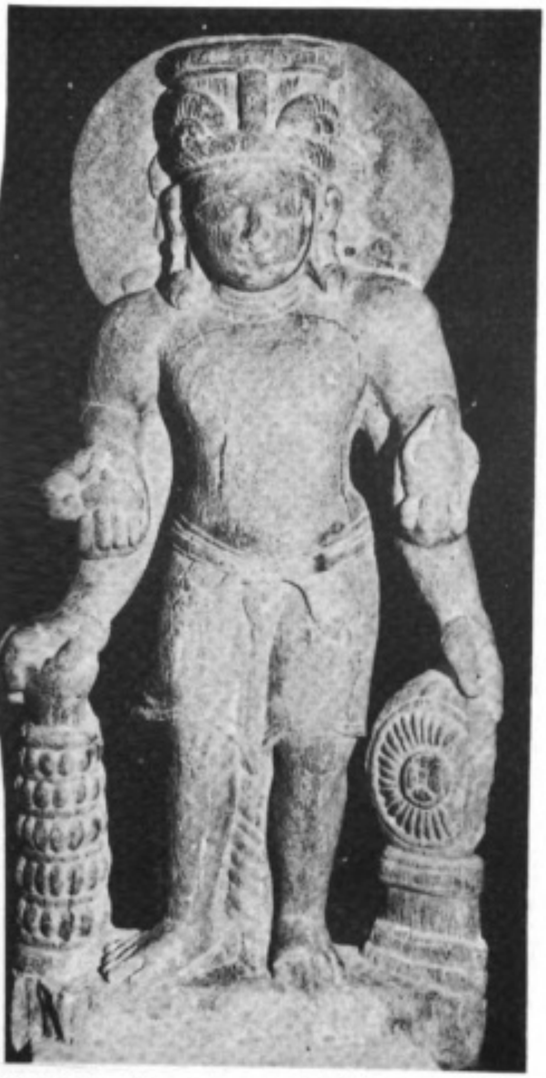




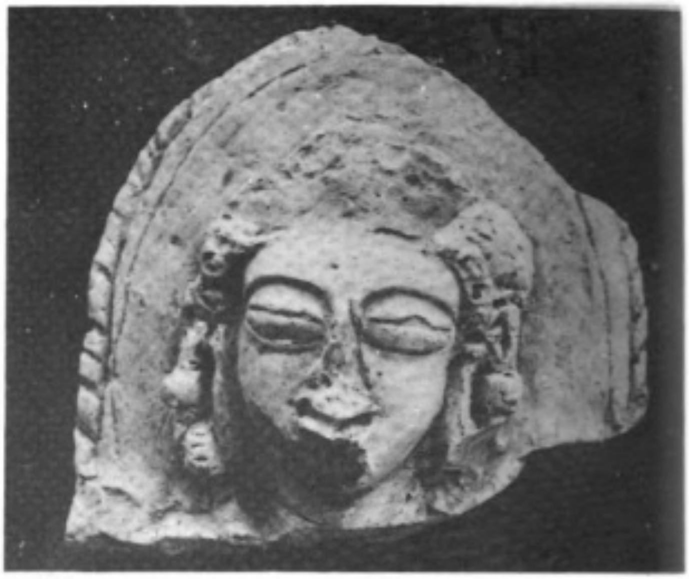
Pl. 20.16. Terracotta *nāgī*, Mangalkot (copyright: Directorate of Archaeology and Museums, Bangladesh)

Pl. 20.17. Terracotta image of Sūrya, Mahasthangarh (after F. M. Asher, *The Art of Eastern India, 300-800 A.D.*, Delhi, 1980, Pl. 41)

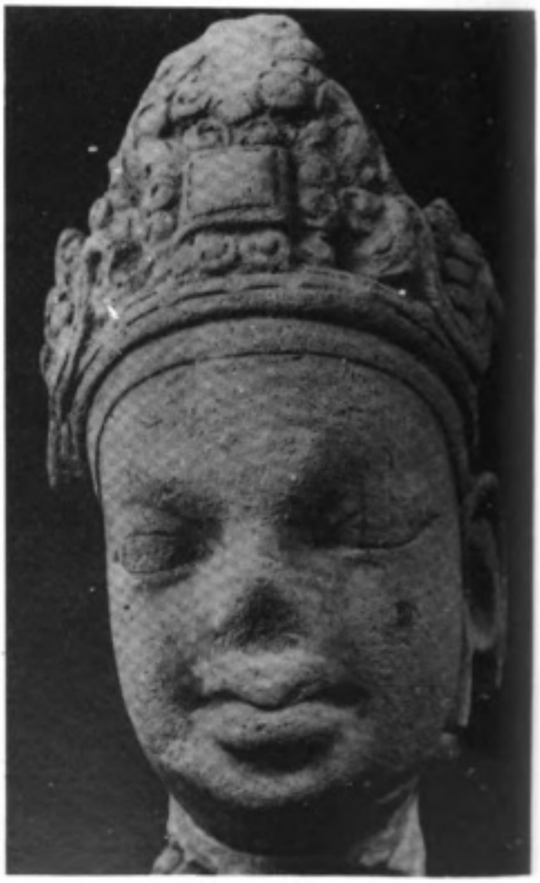




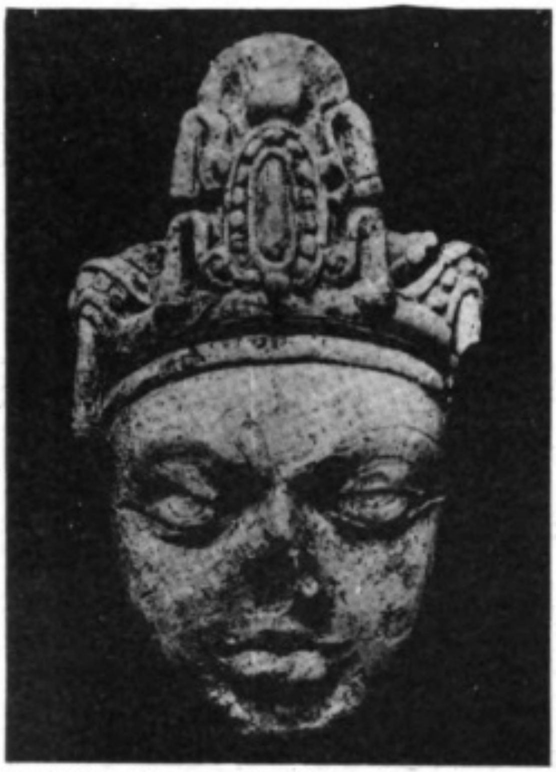
Pl. 20.18. Stone image of Vishṇu, Narhatta (District Bogra), now in Rajshahi Museum (Museum of the Varendra Research Society, Rajshahi) (after F. M. Asher, Pl. 37)



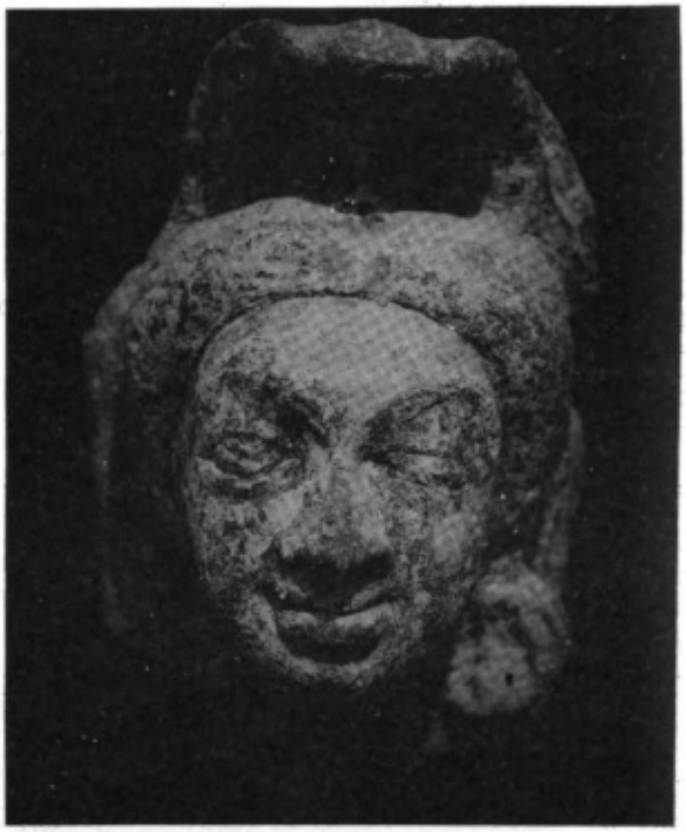
Pl. 20.19. Fragment of a terracotta image, Mahasthangarh Museum (copyright: Directorate of Archaeology and Museums, Bangladesh)



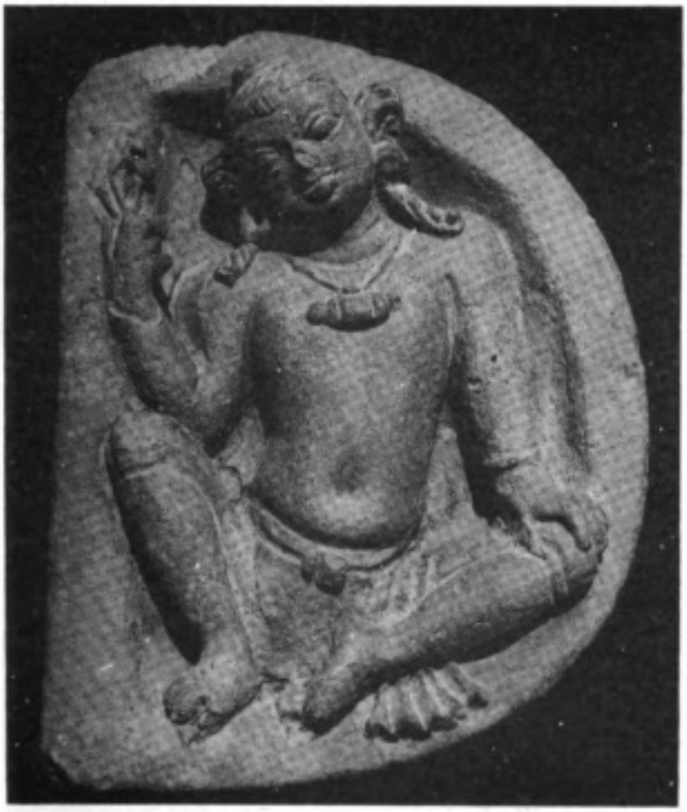
Pl. 20.20. Terracotta head of an image, Mahasthangarh Museum (copyright: Directorate of Archaeology and Museums, Bangladesh)



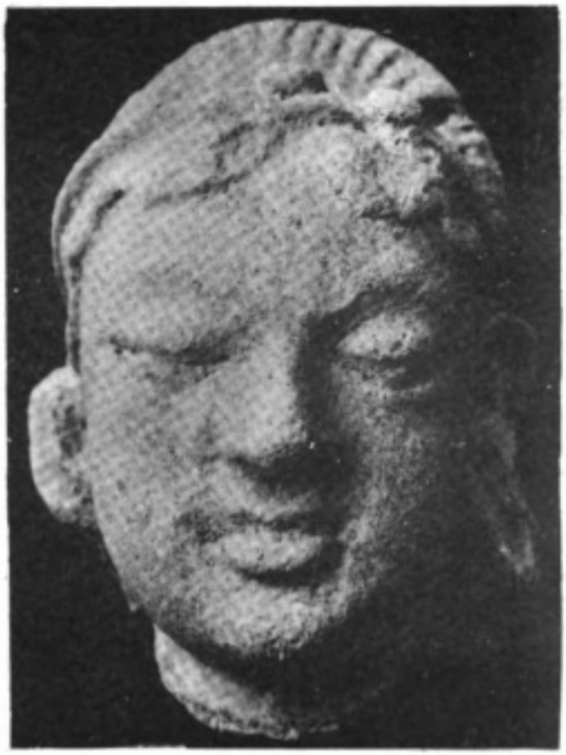
Pl. 20.21. Terracotta head of an image, from Kichak area (copyright: Directorate of Archaeology and Museums, Bangladesh)



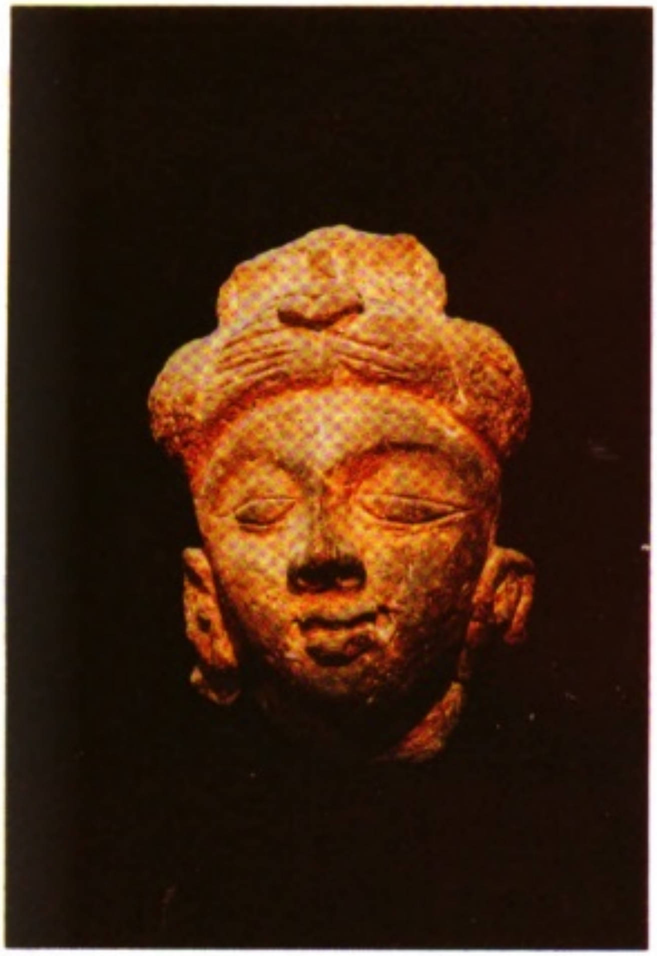
Pl. 20.22. Terracotta head with a snake-hood, Mahasthangarh Museum (copyright: Directorate of Archaeology and Museums, Bangladesh)



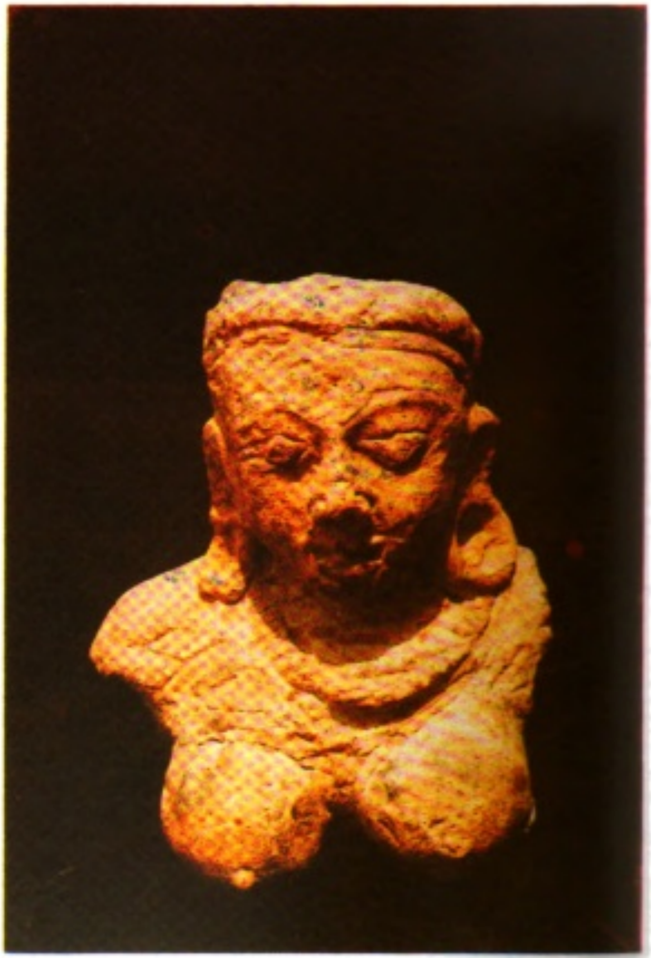
Pl. 20.23. Terracotta figure of Mañjuśrī (?), Mahasthangarh Museum (copyright: Directorate of Archaeology and Museums, Bangladesh)



Pl. 20.24. Terracotta head of a nobleman, Mahasthangarh Museum (copyright: Directorate of Archaeology and Museums, Bangladesh)

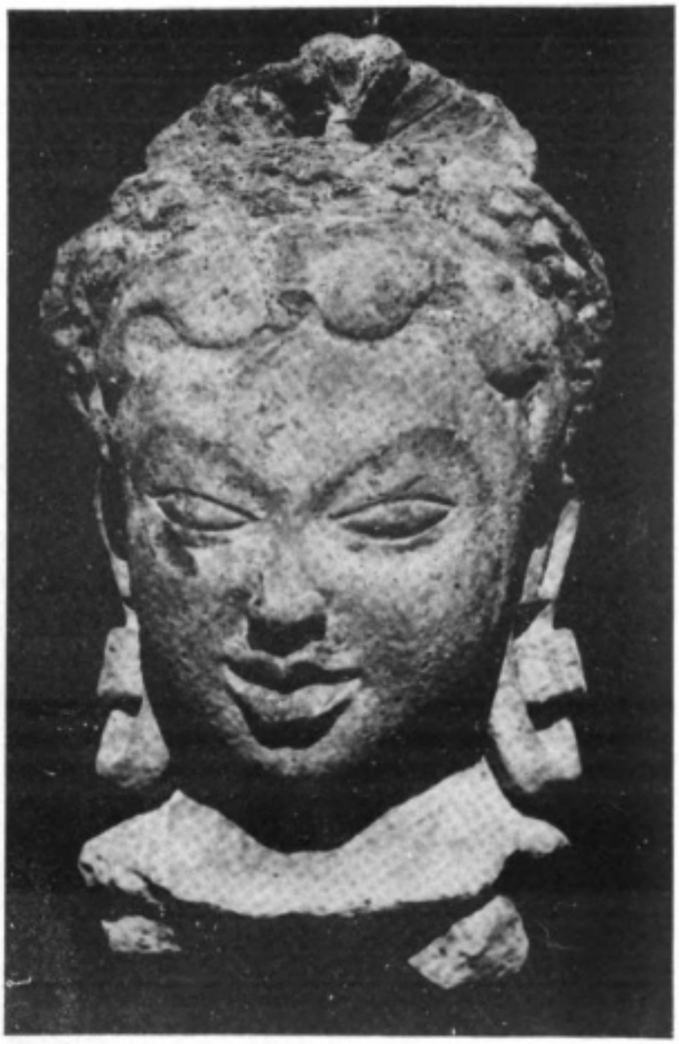


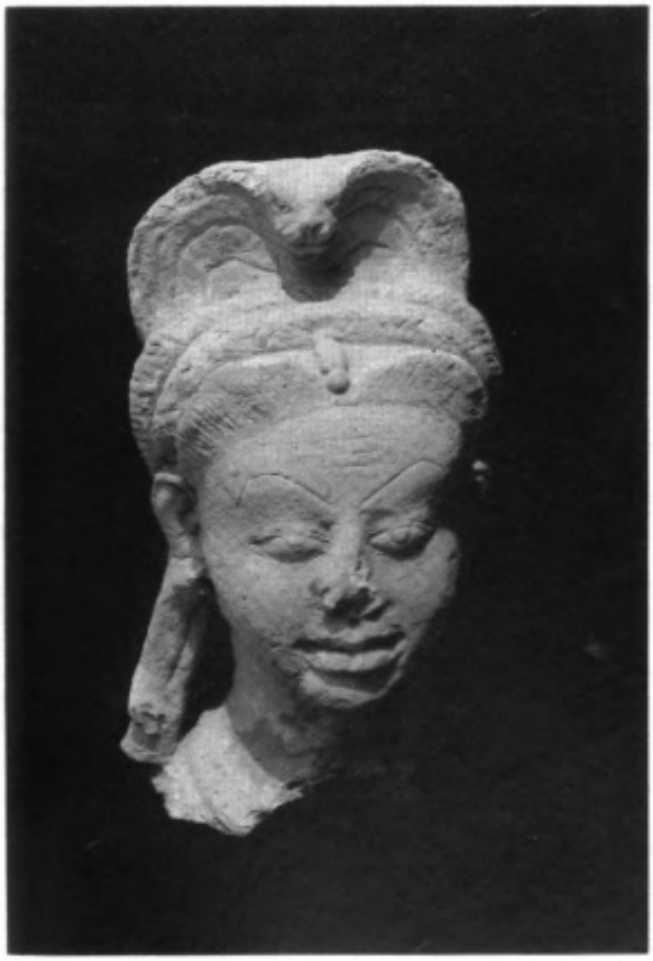
Pl. 20.25. Terracotta head, Mahasthangarh Museum (copyright: Directorate of Archaeology and Museums, Bangladesh)



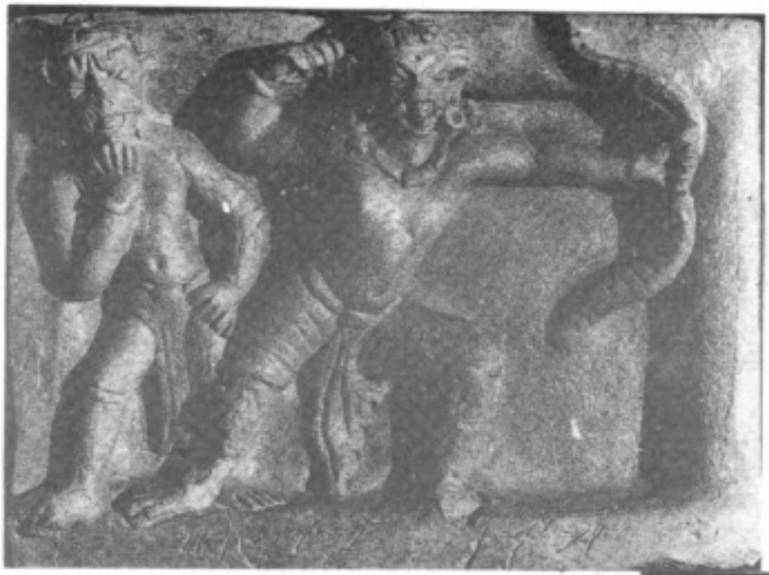
Pl. 20.26. Terracotta bust of a female figure, Mangalkot, now in Mahasthangarh Museum (copyright: Directorate of Archaeology and Museums, Bangladesh)

Pl. 20.27. Terracotta head with a serpent-hood, Mangalkot (copyright: Directorate of Archaeology and Museums, Bangladesh)



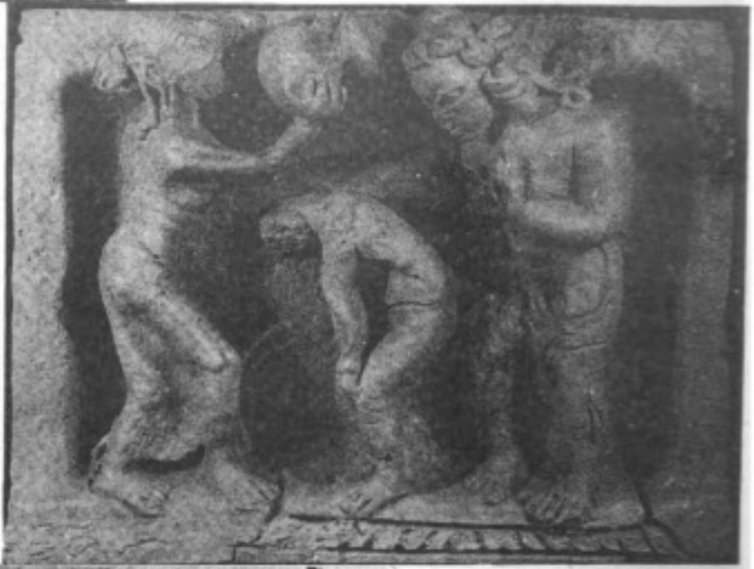


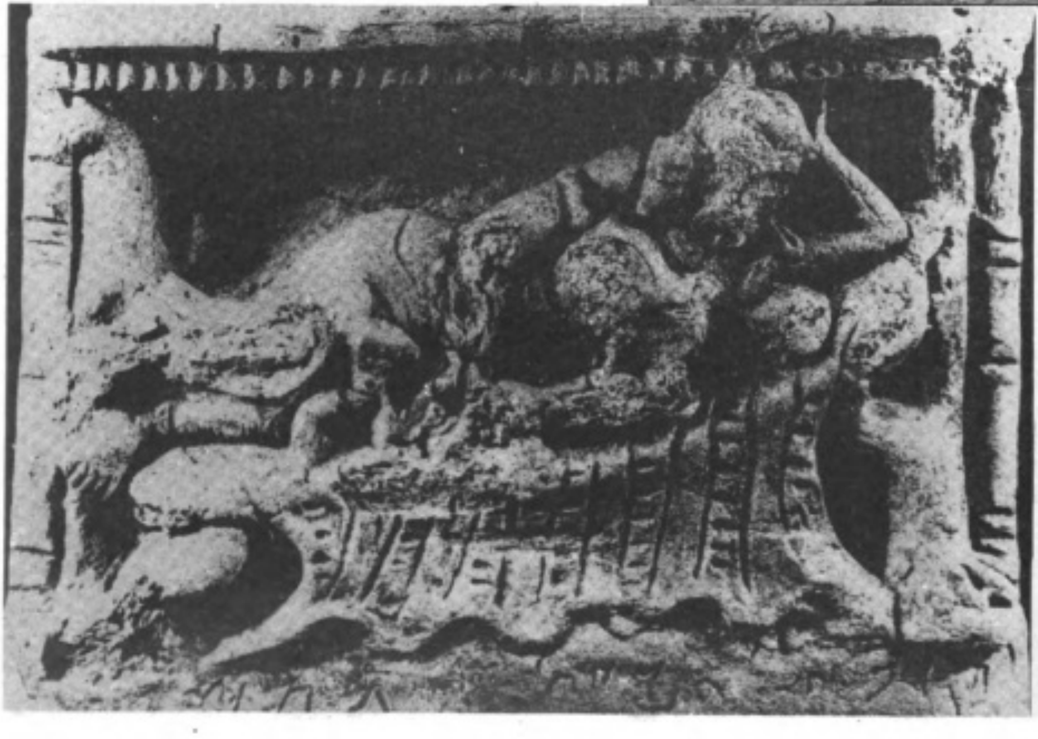
Pl. 20.28. Terracotta head of a serpent-hooded *nāgī*, Mangalkot (copyright: Directorate of Archaeology and Museums, Bangladesh)



Pl. 20.29. Terracotta plaque depicting Rāma stringing Paraśurāma's powerful bow to the surprise and dismay of the latter, Palasbadi (variantly written as Palasbari), near Mahasthangarh (copyright: Bangladesh National Museum)

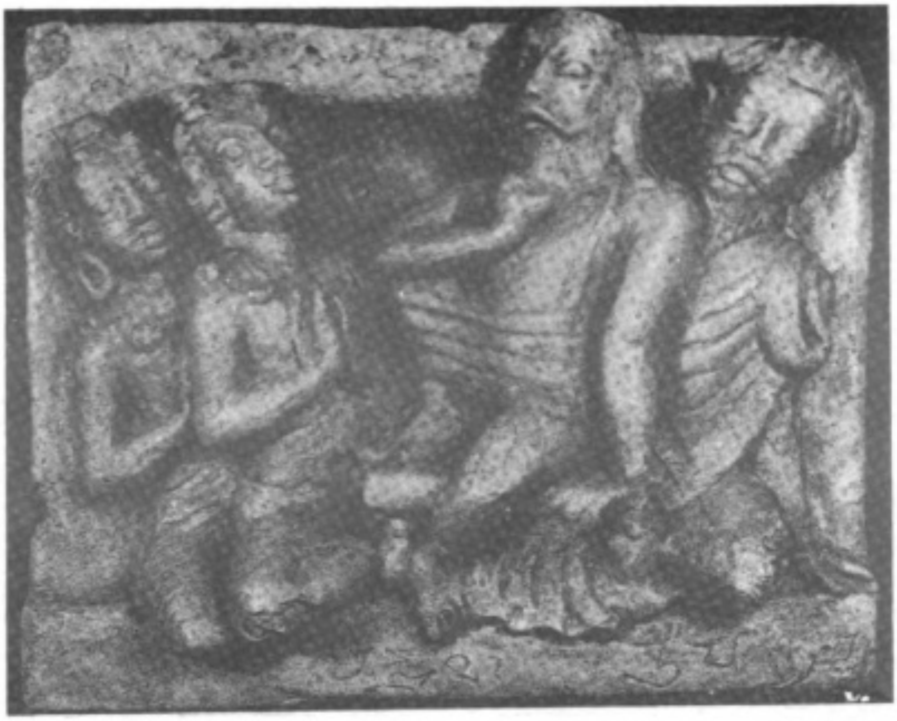
Pl. 20.30. Terracotta plaque showing the bathing, a part of the ritual of the marriage of Rāma and Sītā, Palasbadi (copyright: Bangladesh National Museum, Dhaka)

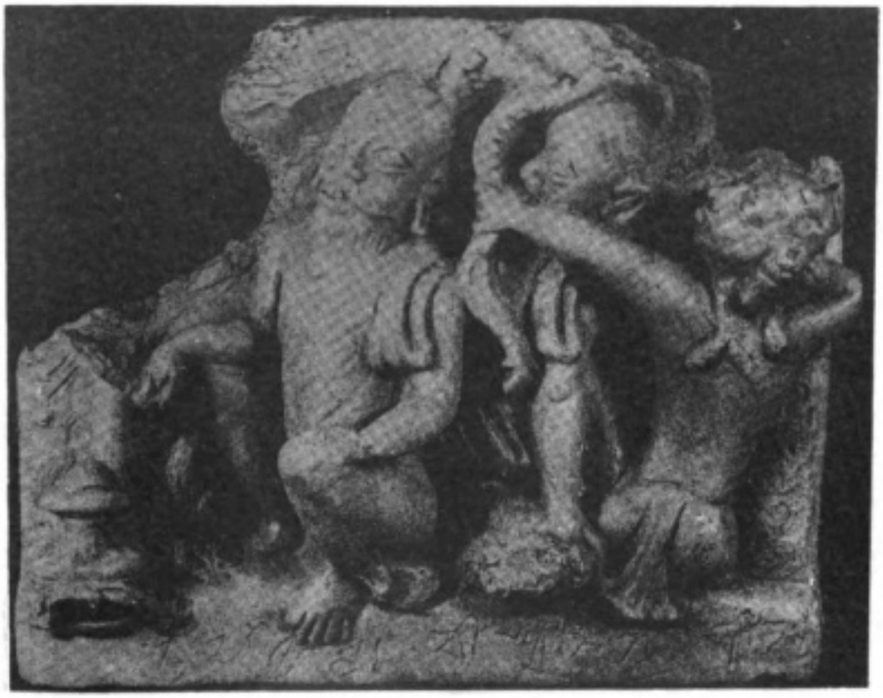




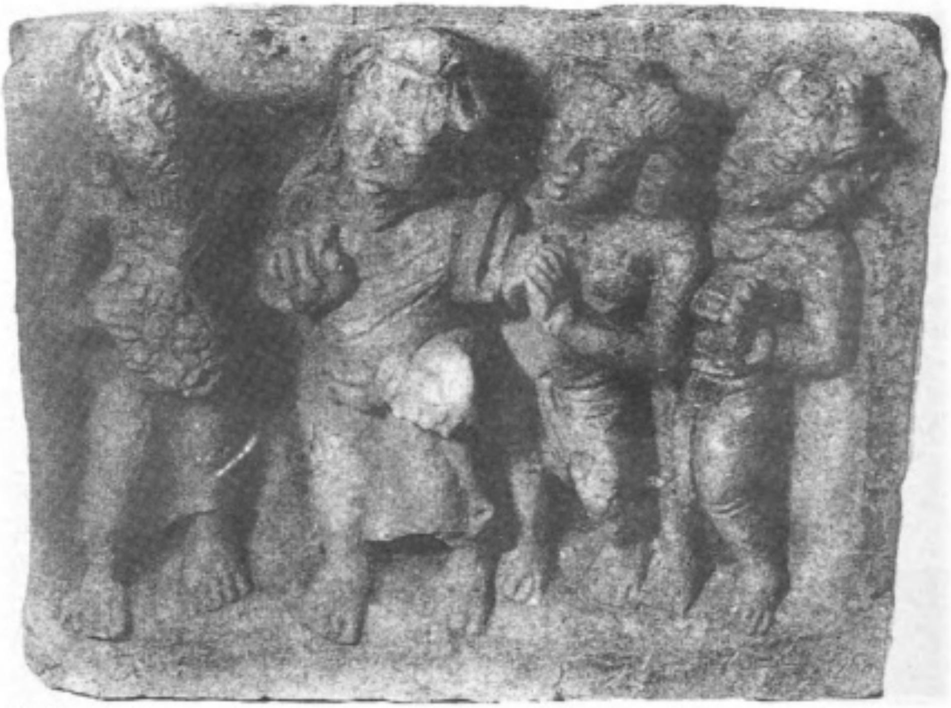
Pl. 20.31. Terracotta plaque showing Sumitrā reclining on a bed with her two sons, Lakshmaṇa and Śatrughna, Saralpur/ Palasbadi (copyright: Bangladesh National Museum)

Pl. 20.32. Terracotta plaque depicting Rama and Lakshmaṇa listening to Viśvāmitra, behind whom is an *upādhyāya* (preceptor), Palasbadi (copyright: Bangladesh National Museum, Dhaka)

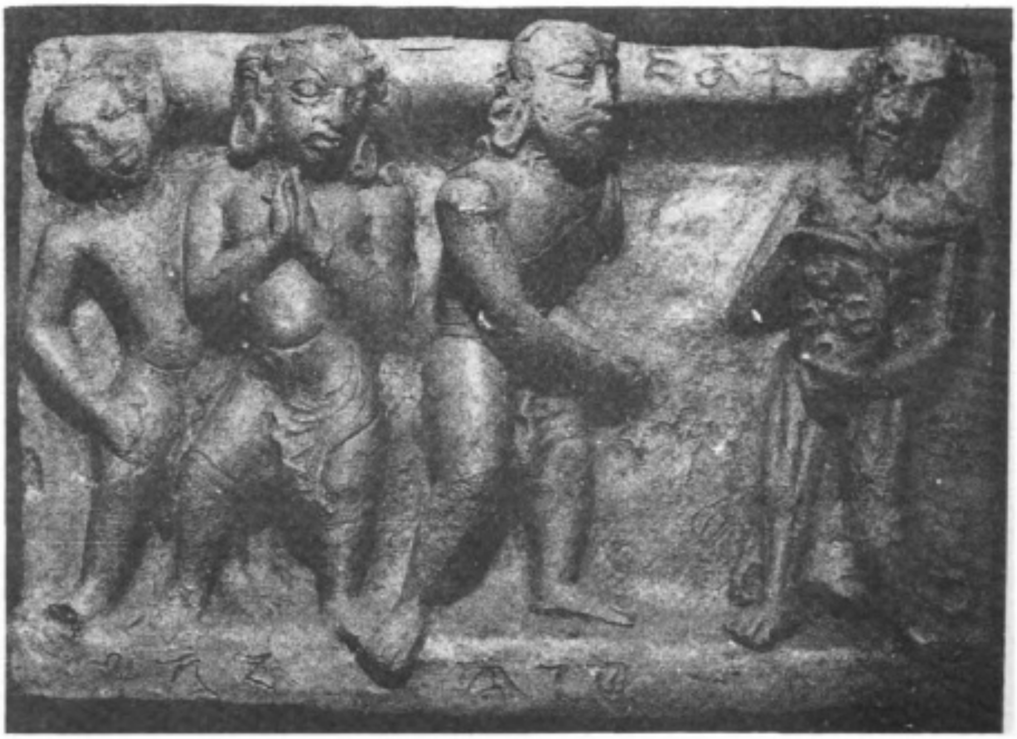




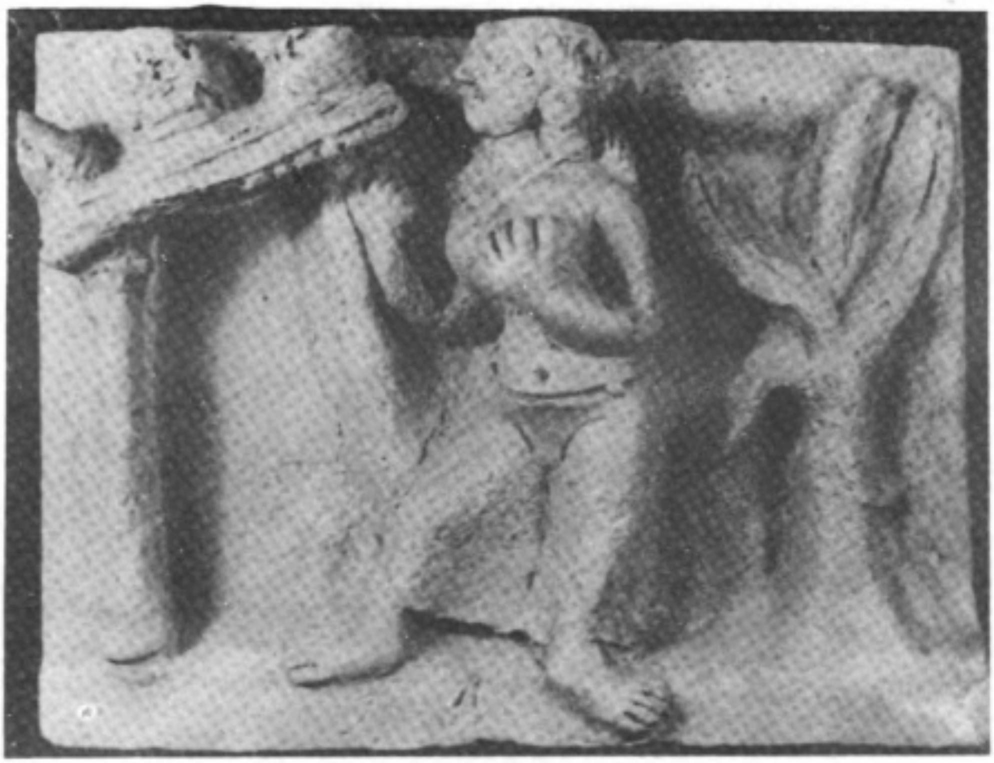
Pl. 20.33. Terracotta plaque showing an *upādhyāya* in the company of Viśvāmitra performing a sacrifice (*yajña*) and Rāma aiming his bow towards Tāḍakā, Palasbadi (copyright: Bangladesh National Museum, Dhaka)



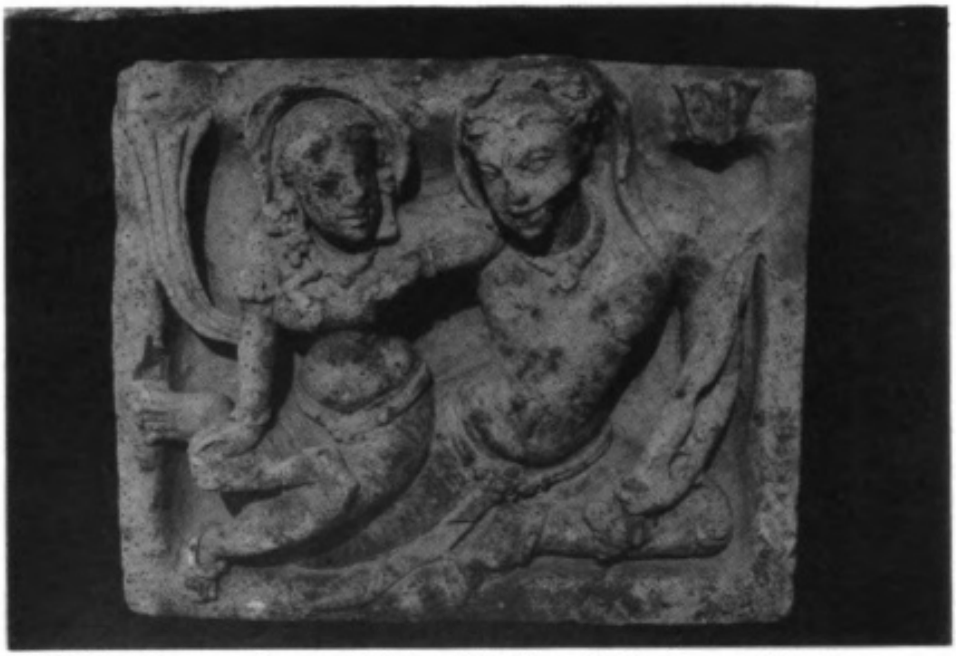
Pl. 20.34. Terracotta plaque showing Janaka, with a tray of flowers, welcoming Viśvāmitra, the latter accompanied by Rāma and Lakshmaṇa, Palasbadi (copyright: Bangladesh National Museum, Dhaka)



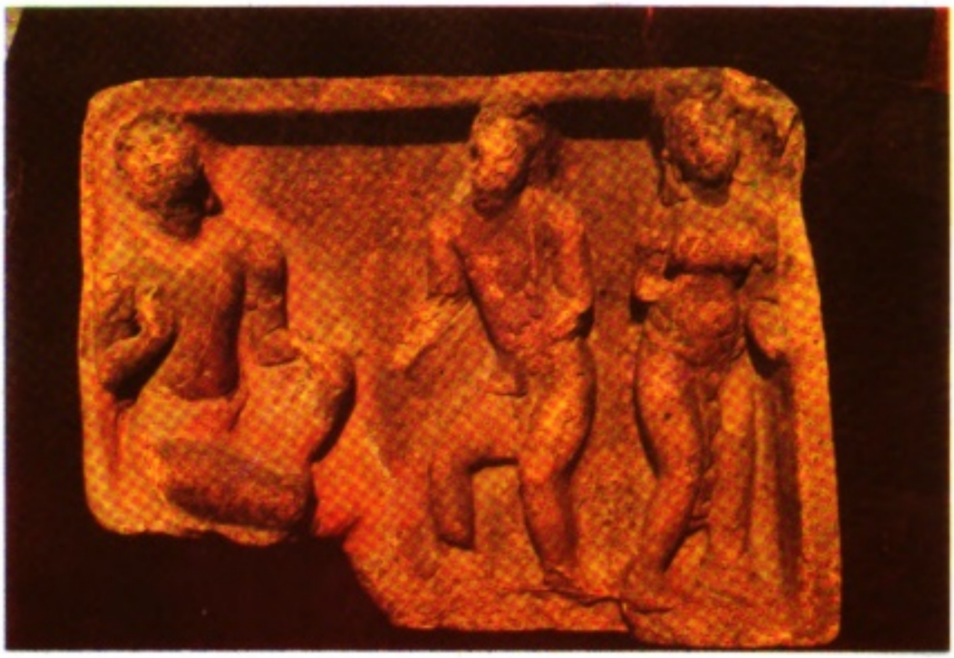
Pl. 20.35. Terracotta plaque showing the reception of Daśaratha accompanied by Bharata and Śatrughna by Janaka holding a tray of flowers, Palasbadi (copyright: Bangladesh National Museum, Dhaka)



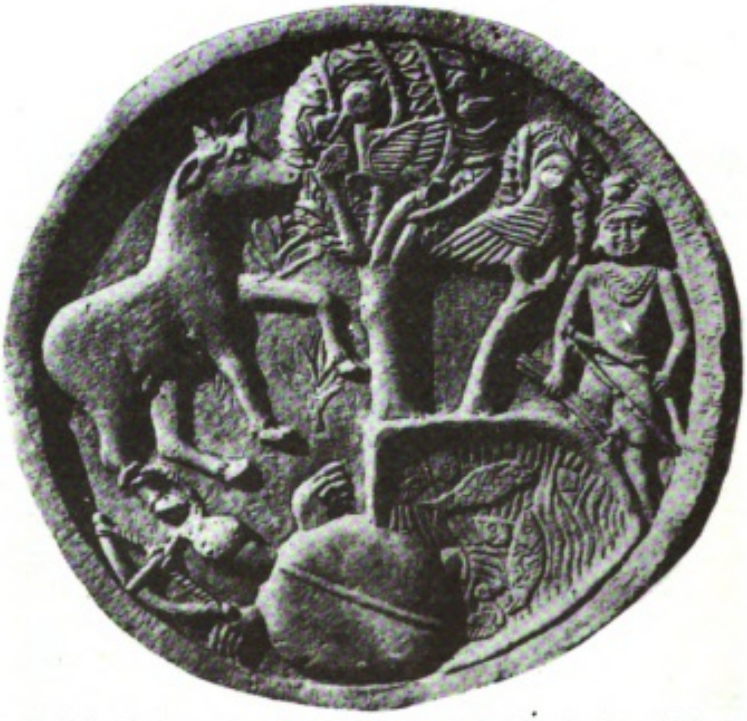
Pl. 20.36. Terracotta plaque depicting Sīta entering a gateway (possibly of a temple), Palasbadi (copyright: Bangladesh National Museum, Dhaka)



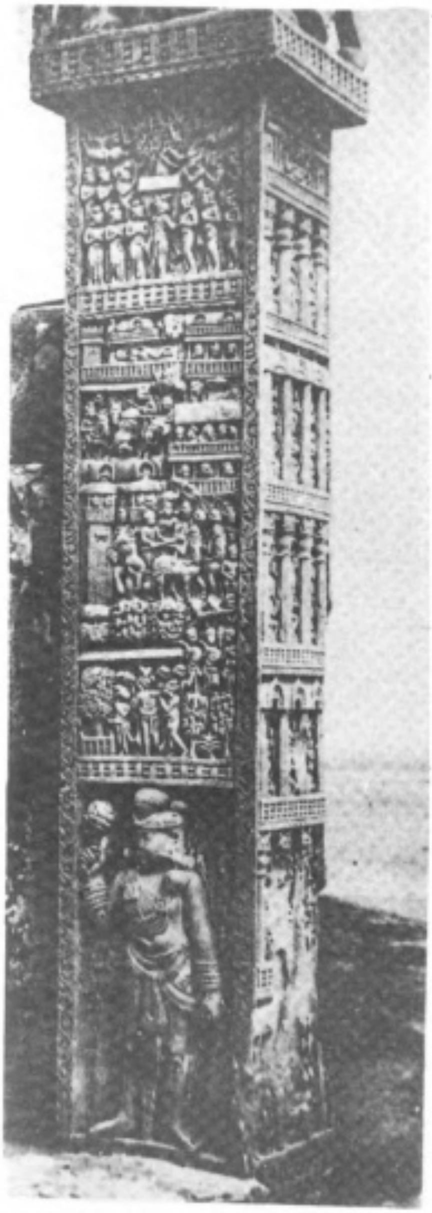
Pl. 20.37. Terracotta plaque with flying *vidyādharas*, Mahasthangarh Museum (copyright: Directorate of Archaeology and Museums, Bangladesh)

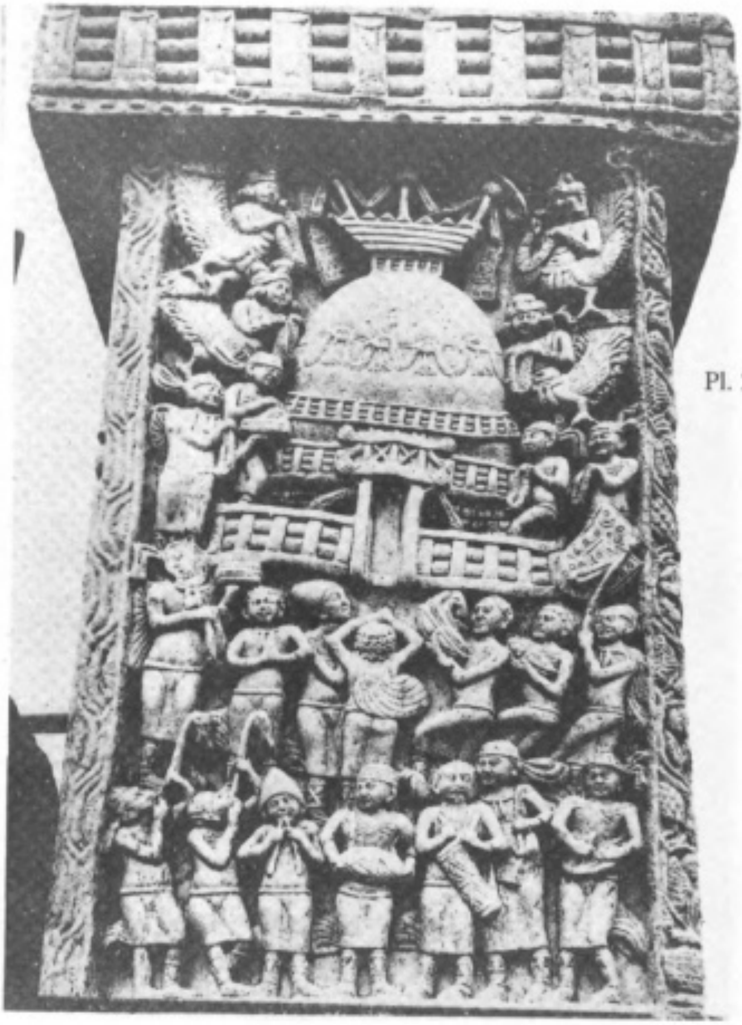


Pl. 20.38. Terracotta plaque with an unidentified scene, Mahasthangarh Museum (copyright: Directorate of Archaeology and Museums, Bangladesh)



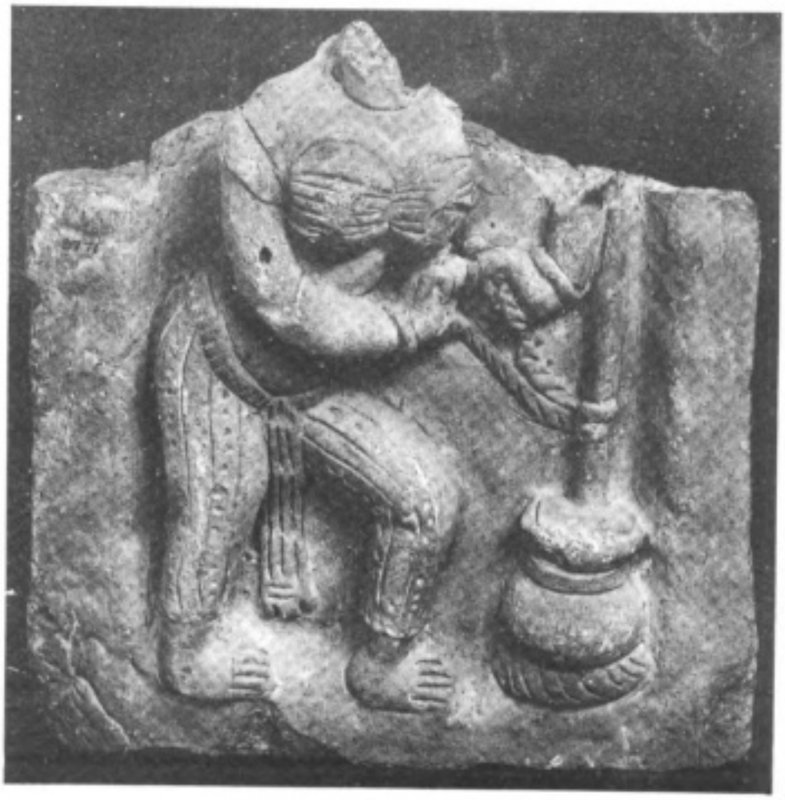
Pl. 20.39. Relief of the story of the *Kuruṅga-miga-Jātaka* in which Bodhisattva, born as an antelope, was ensnared by a hunter and ultimately escaped with the help of a wood-pecker and a tortoise, Bharhut balustrade (after H. Zimmer, *The Art of Indian Asia*, Vol. II, New York, 1955, Pl. 31a)



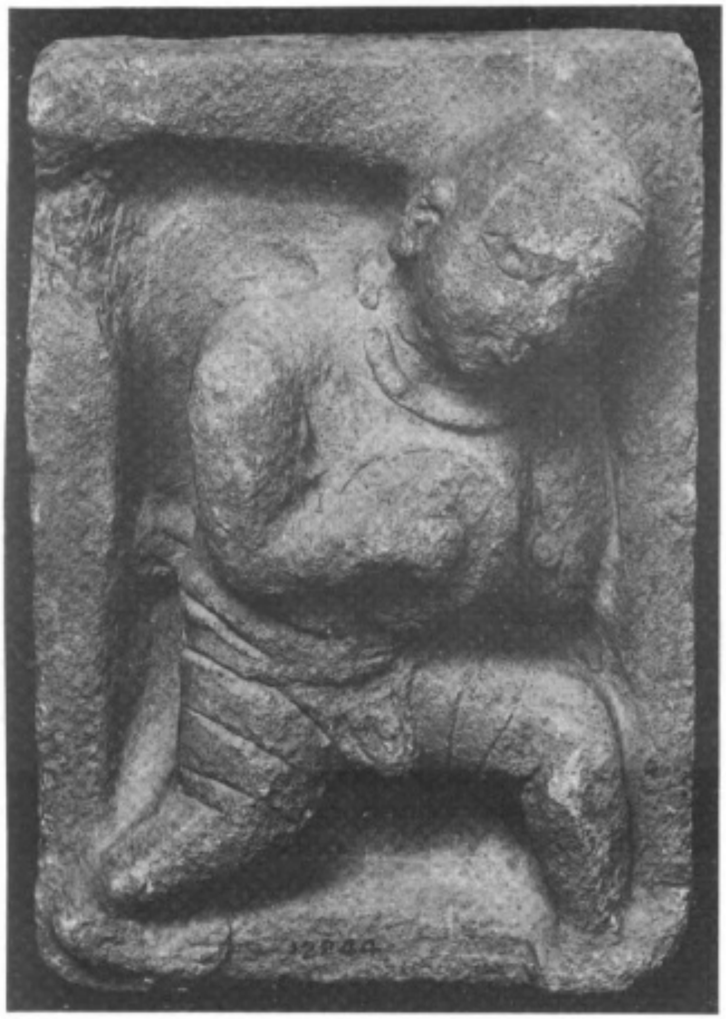


Pl. 20.41. Worship of a *stūpa*, North gateway of Stūpa 1, Sanchi (after H. Zimmer, *The Art of Indian Asia*, Vol. II, New York, 1955, Pl. 8)

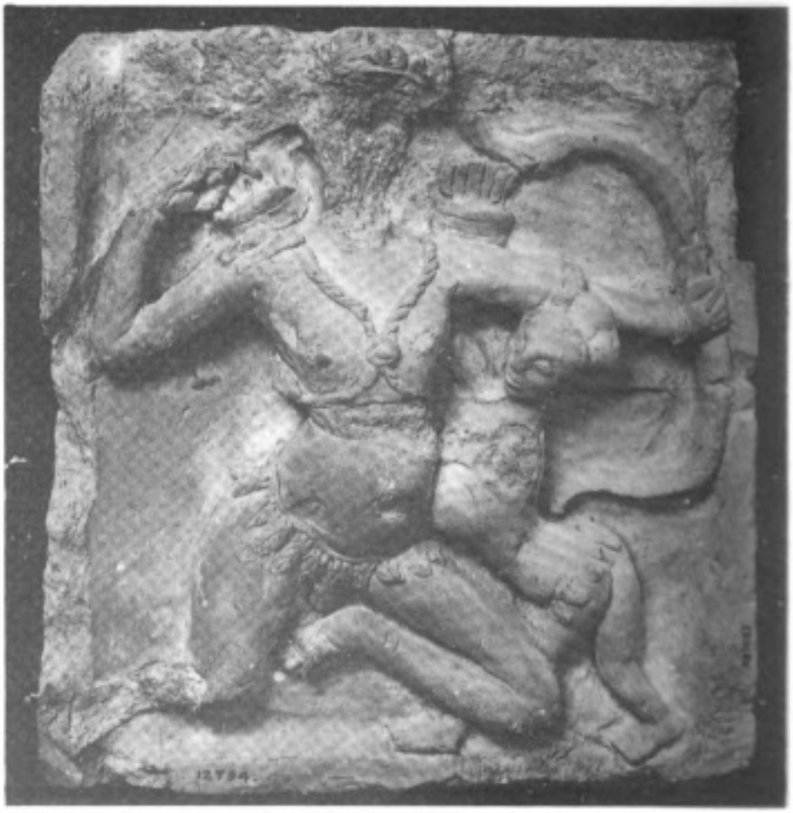
Pl. 20.40. Scenes from the life of Buddha, East gateway of Stūpa 1, Sanchi (after H. Zimmer, *The Art of Indian Asia,* Vol. II, New York, 1955, Pl. 16)



Pl. 20.42. Terracotta plaque depicting churning of milk or curd by a lady, Paharpur (copyright: Indian Museum, Calcutta)

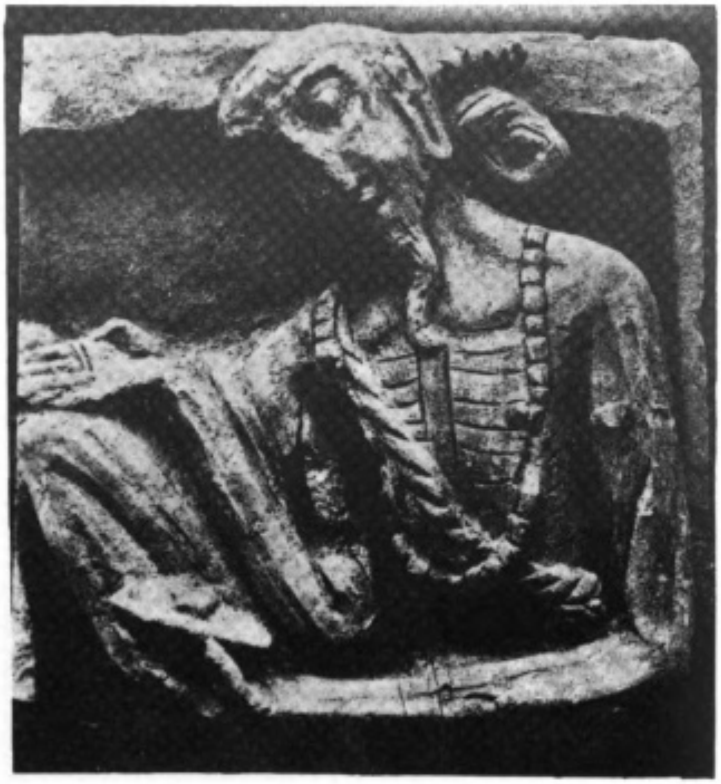


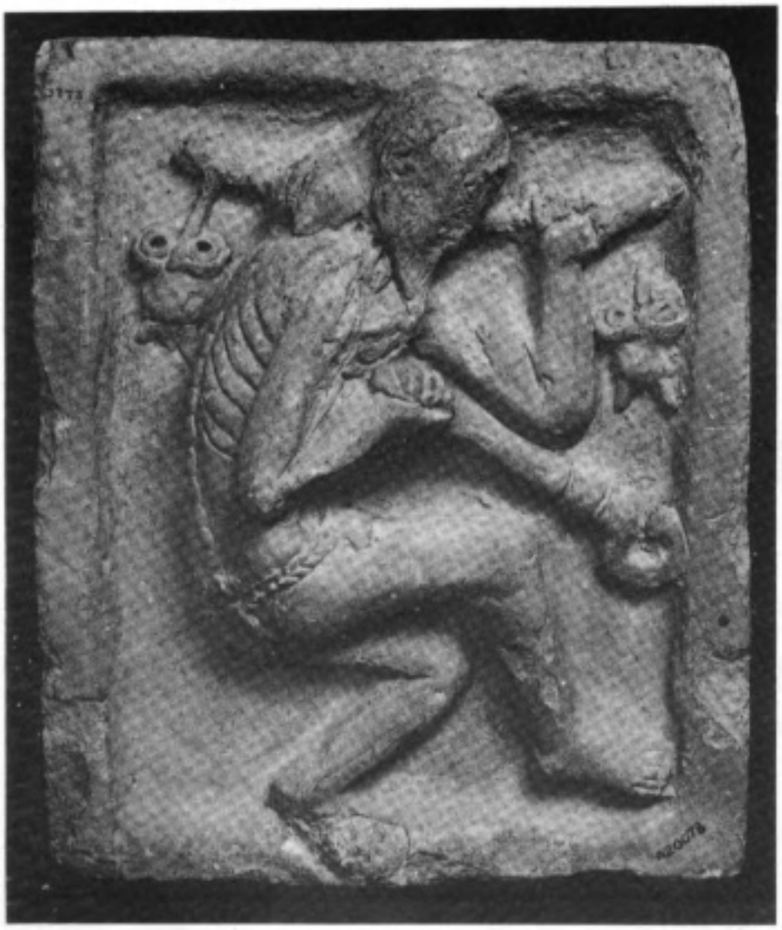
Pl. 20.43. Terracotta plaque showing a man playing on cymbals, Paharpur (copyright: Indian Museum, Calcutta)



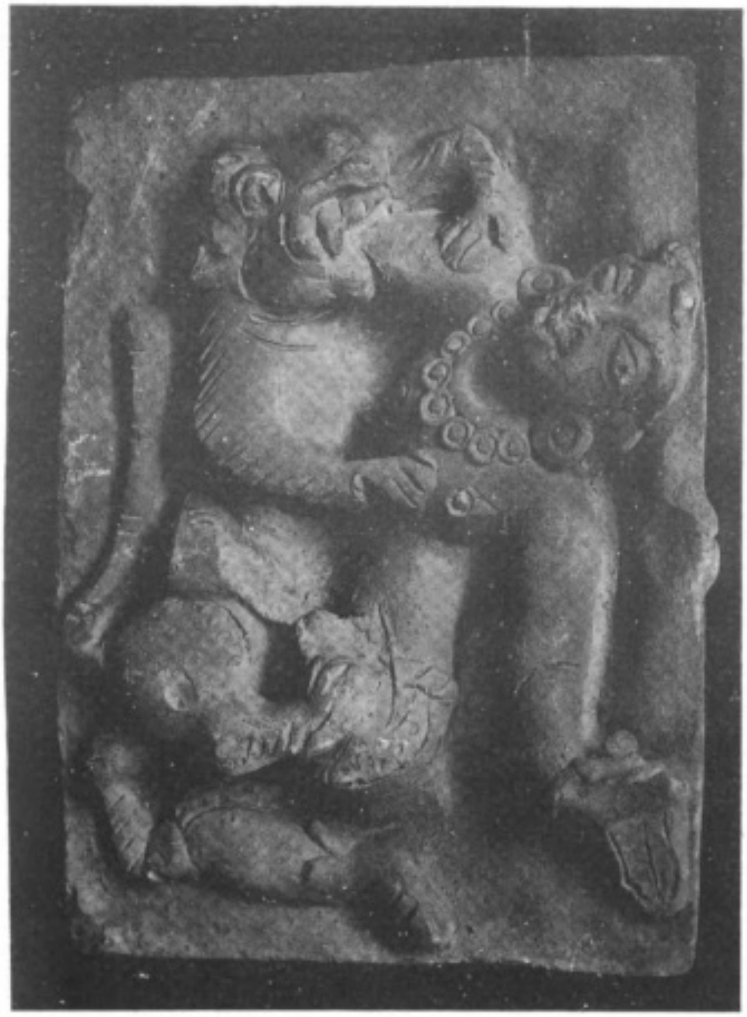
Pl. 20.44. Terracotta plaque with a *kirāta* couple throwing an arrow, Paharpur (copyright: Indian Museum, Calcutta)

Pl. 20.45. Terracotta plaque with a bearded ascetic figure, reduced to skeleton, Paharpur (copyright: Indian Museum, Calcutta)

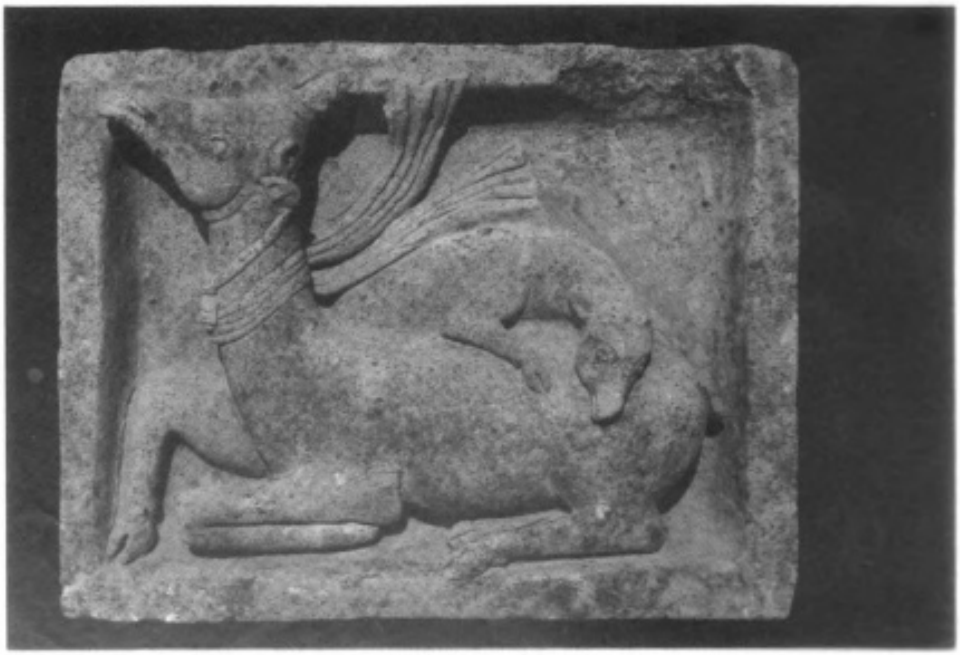




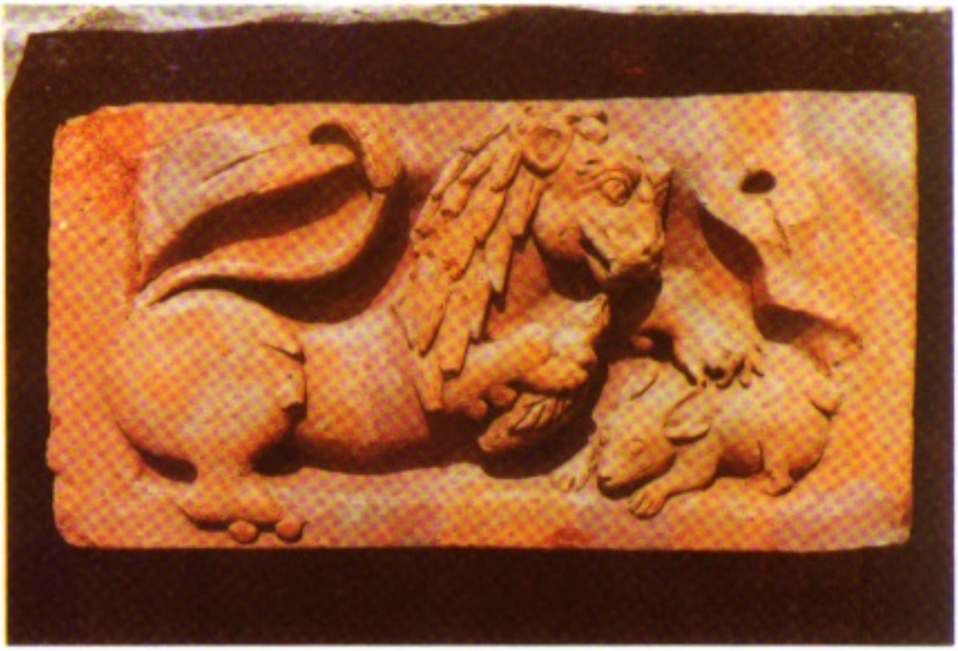
Pl. 20.46. Terracotta plaque with a bearded travelling ascetic, Paharpur (copyright: Indian Museum, Calcutta)



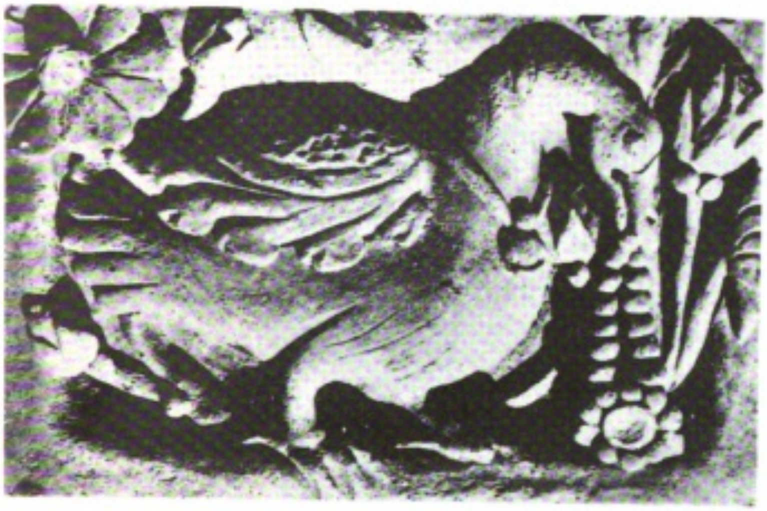
Pl. 20.47. Terracotta plaque having a man fighting with a lion, Paharpur (copyright: Indian Museum, Calcutta)



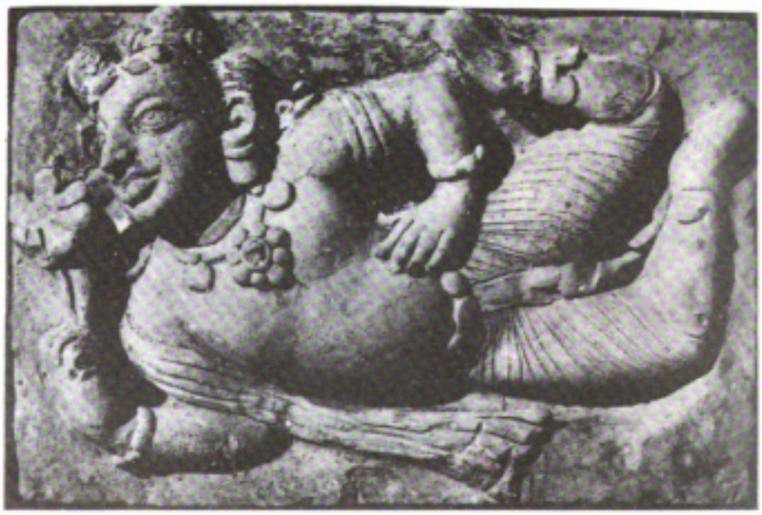
Pl. 20.48. Terracotta plaque with deer, from Vasu-bihar (variantly written as Vasu-Bihar and Bhasu Vihar) (copyright: Directorate of Archaeology and Museums, Bangladesh)



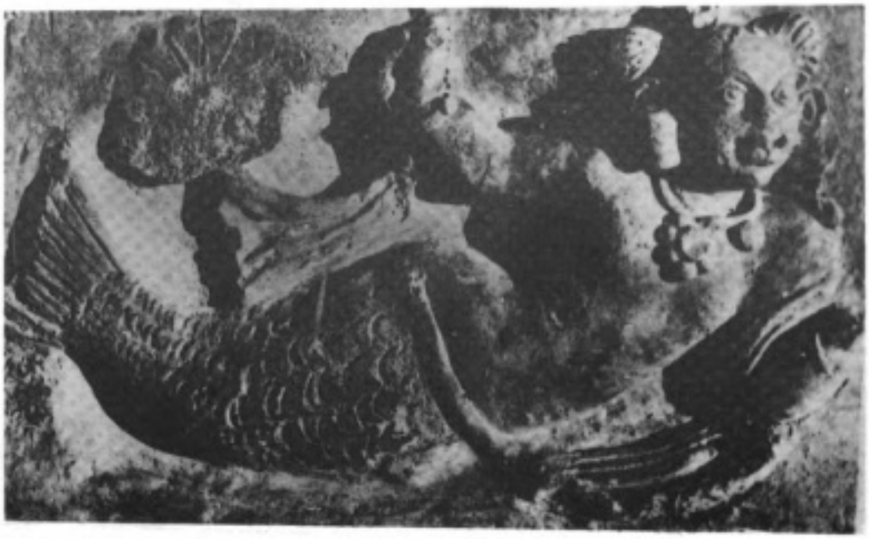
Pl. 20.49. Terracotta plaque with a rabbit in the clutch of a lion, Vasu-bihar (copyright: Directorate of Archaeology and Museums, Bangladesh)



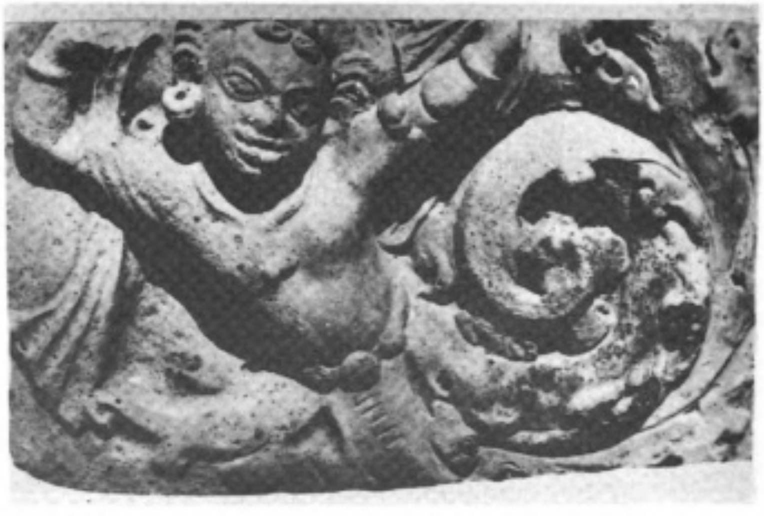
Pl. 20.50. Terracotta plaque with a *haṁsa* holding a pearl *hāra* in its bill, Vasu-bihar (copyright: Directorate of Archaeology and Museums, Bangladesh)



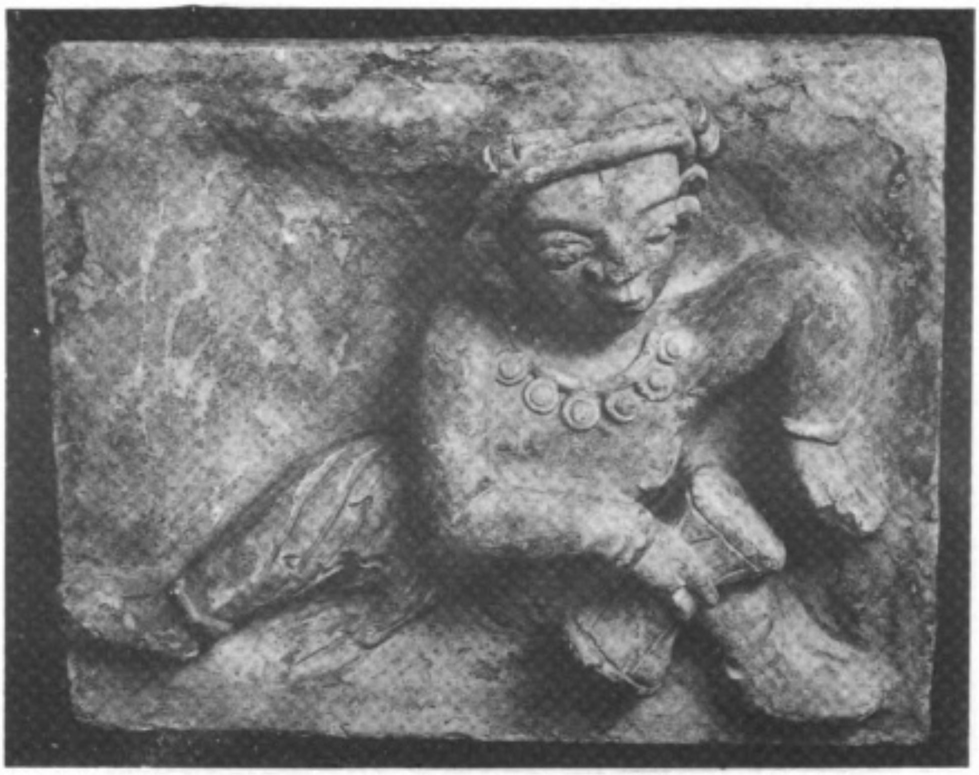
Pl. 20.51. Terracotta flying *vidyādhara,* Vasu-bihar (copyright: Directorate of Archaeology and Museums, Bangladesh)



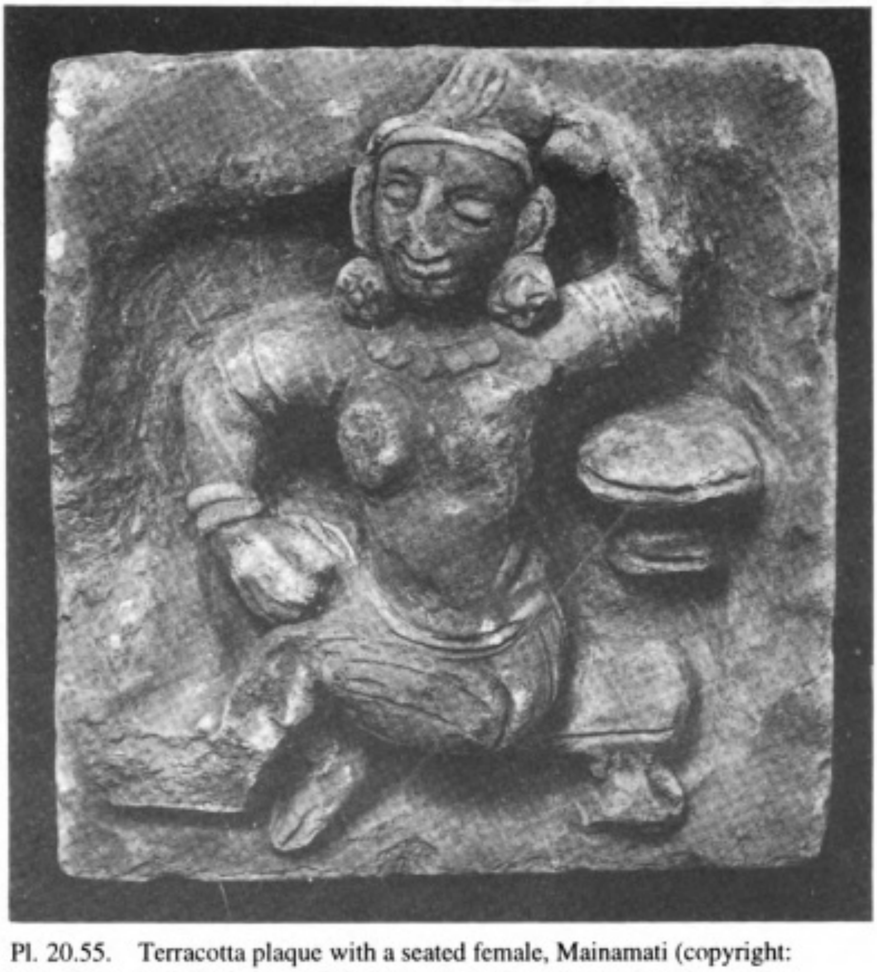
Pl. 20.52. Terracotta merman, Vasu-bihar (copyright: Directorate of Archaeology and Museums, Bangladesh)



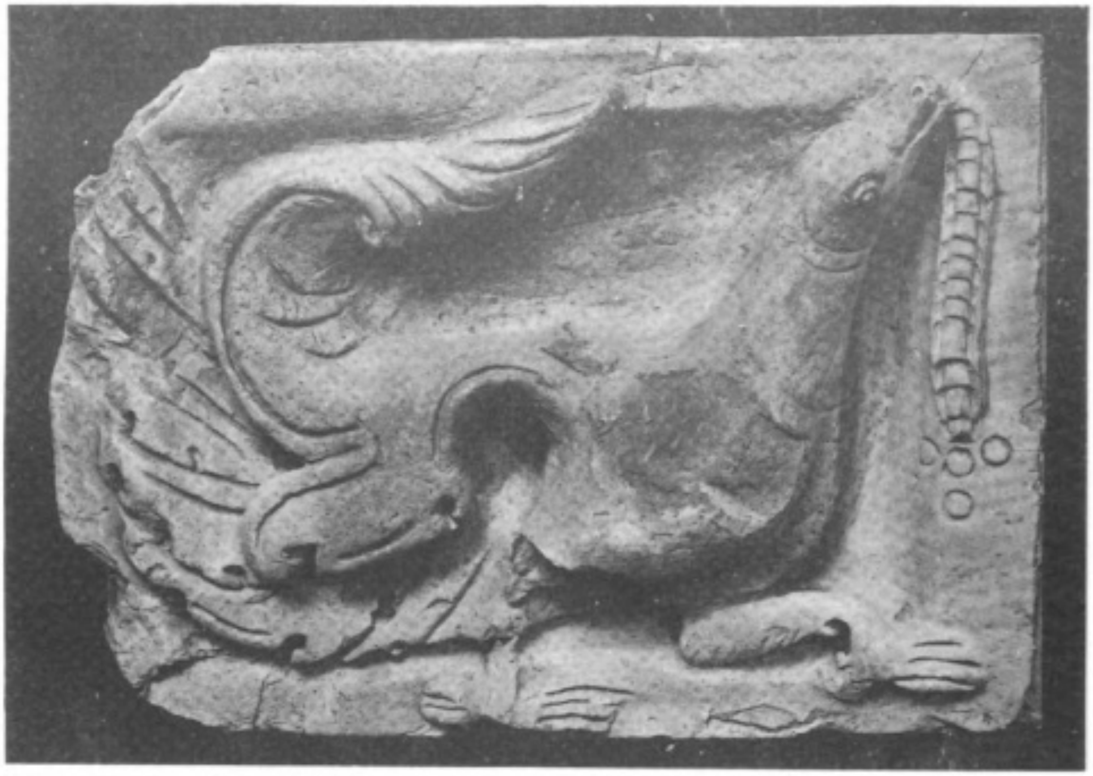
Pl. 20.53. Terracotta composite male figure with the lower part in the form of a foliated scroll, Vasu-bihar (copyright: Directorate of Archaeology and Museums, Bangladesh)



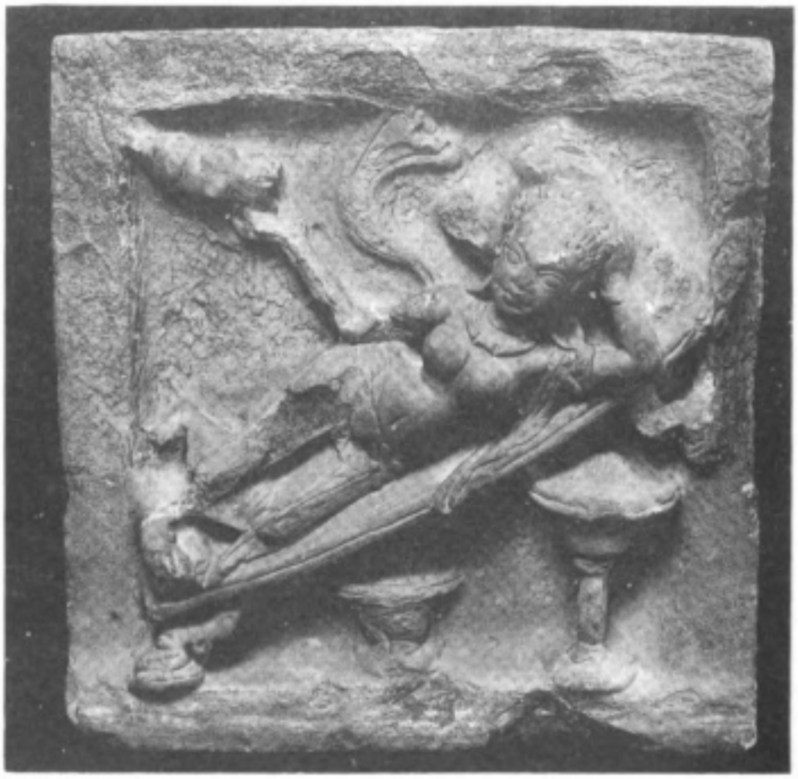
Pl. 20.54. Terracotta dancing male playing on a *ḍamaru* (a kind of small drum), Mainamati (copyright: Indian Museum, Calcutta)



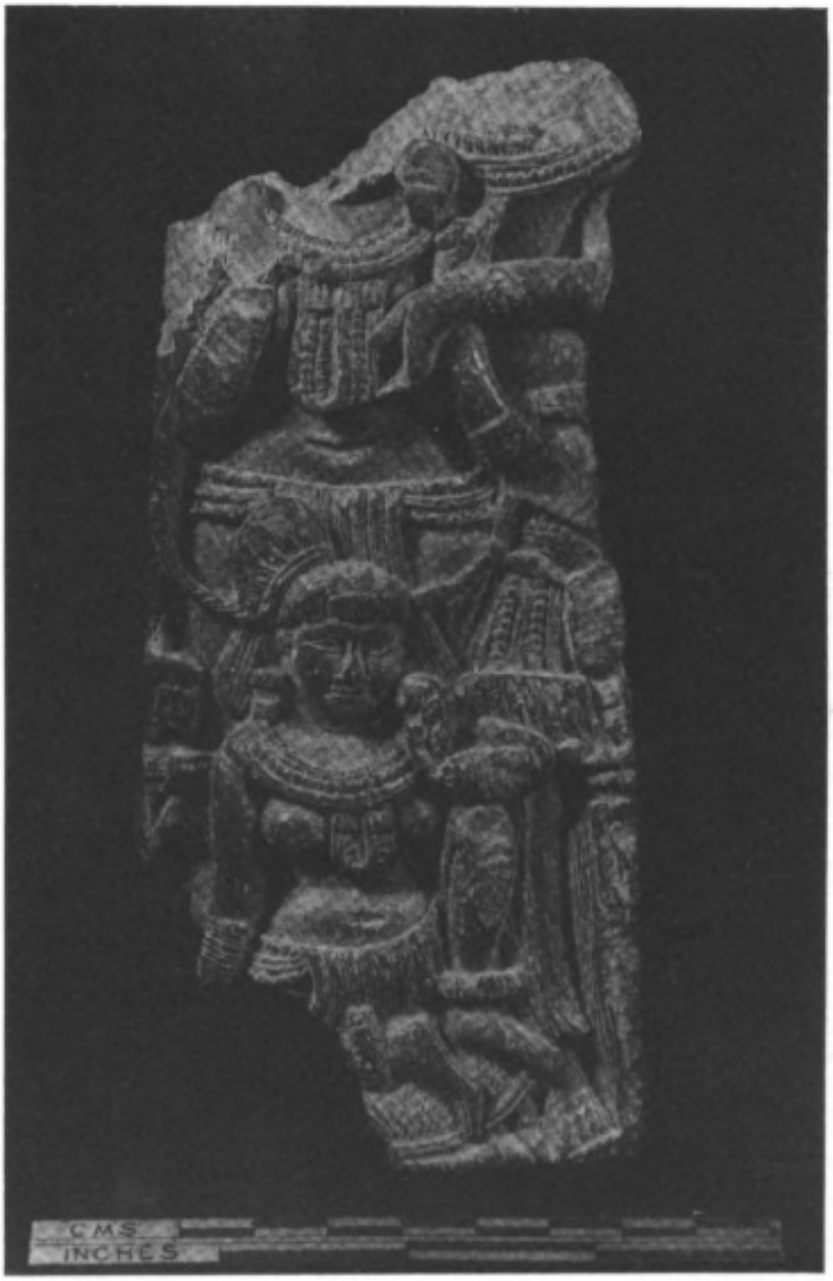
Pl. 20.55. Terracotta plaque with a seated female, Mainamati (copyright: Indian Museum, Calcutta)



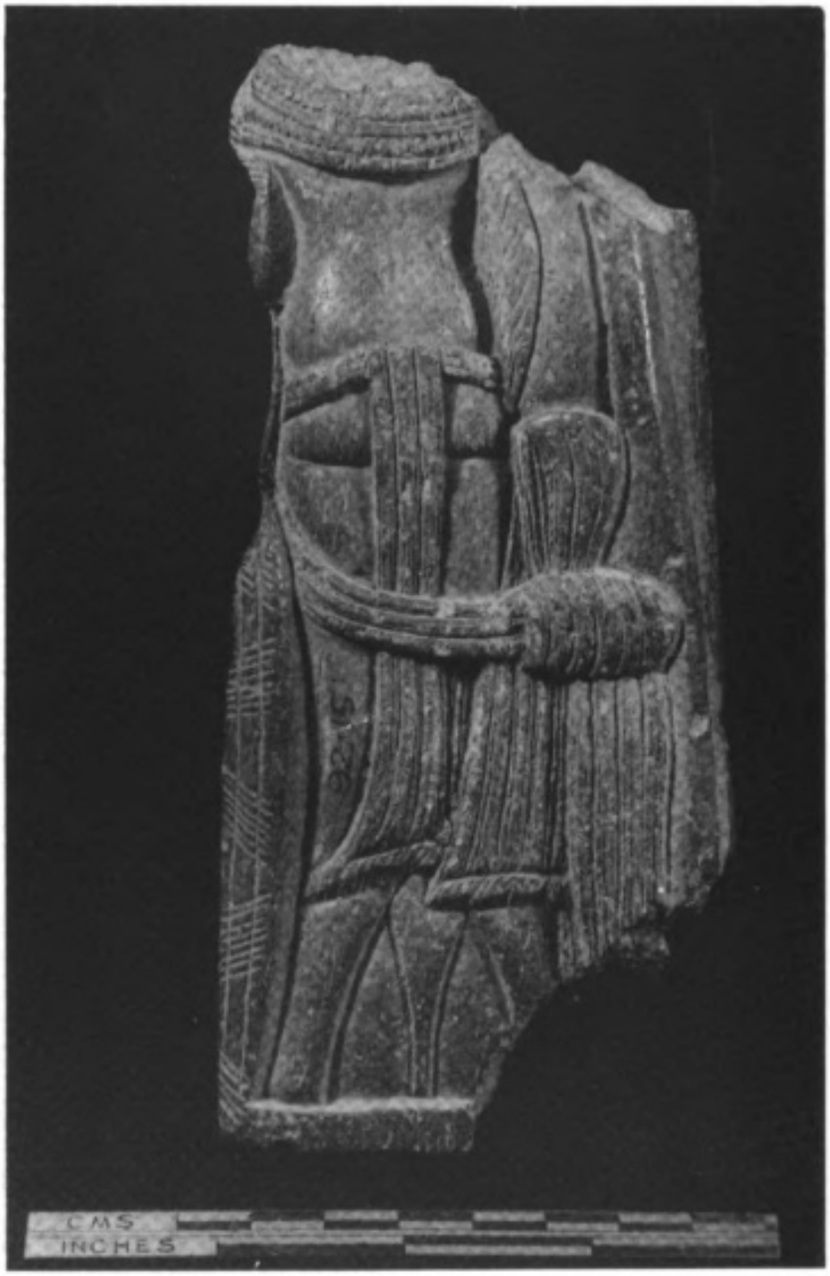
Pl. 20.56. Terracotta plaque with a peacock, from the bill of which hang down beaded strings, Mainamati (copyright: Indian Museum, Calcutta)



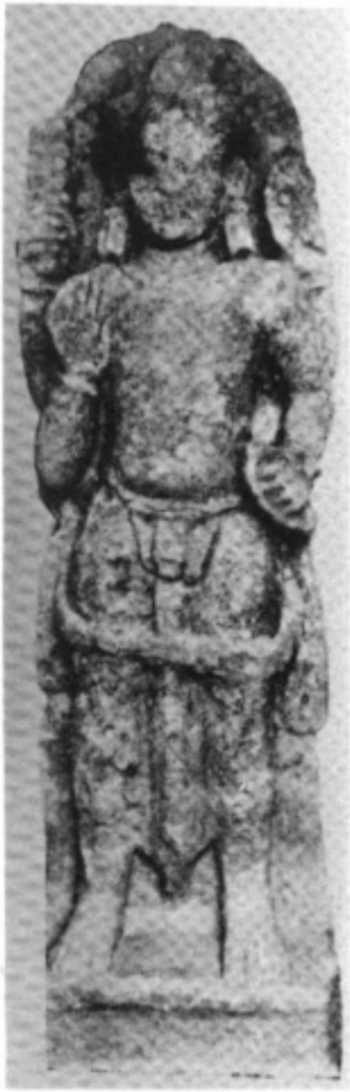
Pl. 20.57. Terracotta plaque showing the dream of Māyādevī, Mahasthan (copyright: Indian Museum, Calcutta)



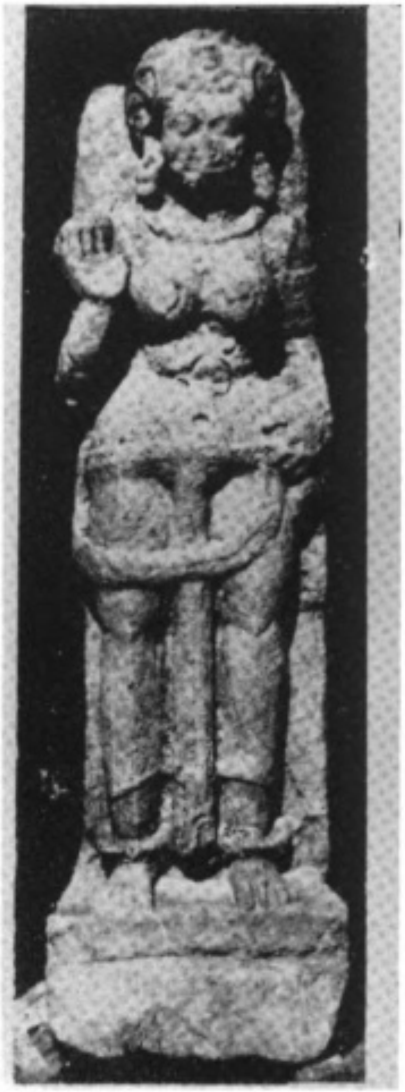
Pl. 21.1 (a). Front view of a plaque carved with figures on a fossilized bone, Mangalkot (District Burdwan, West Bengal), now in the State Archaeological Museum, West Bengal (copyright: Directorate of Archaeology and Museums, Government of West Bengal)



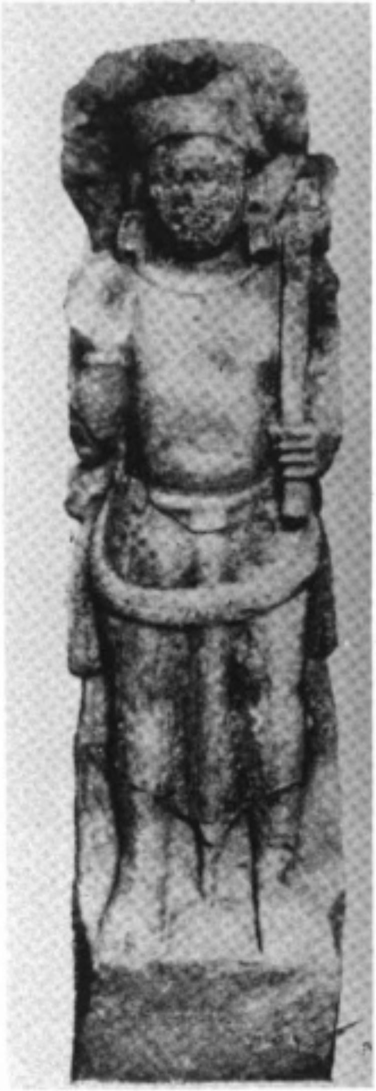
Pl. 21.1 (b). Back view of the plaque, shown on Pl. 21.1(a)



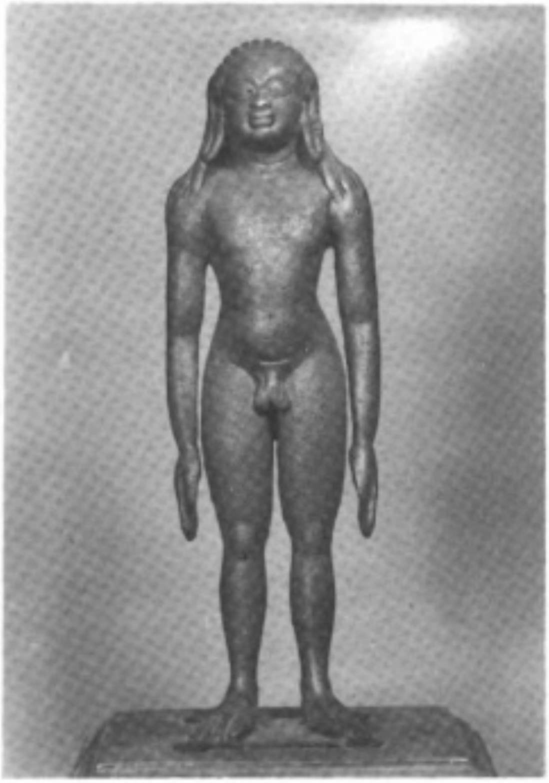
Pl. 21.2. Sandstone image of Vāsudeva, Devangarh (District Nawadah, Bihar), now in Patna Museum (after C.R.P. Sinha, *Early Sculpture of Bihar,* Patna, 1980, Pl.26)



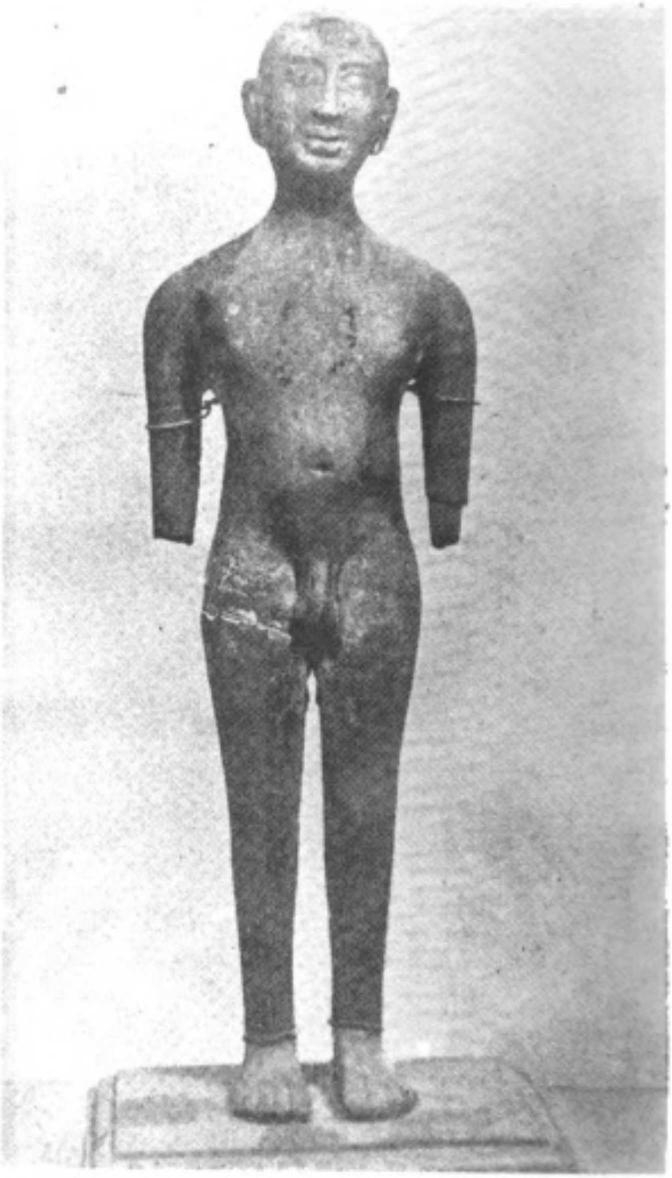
Pl. 21.3. Sandstone image of Ekānaṁśā, Devangarh (District Nawadah, Bihar), now in Patna Museum (after C.R.P. Sinha, *op. cit,)*



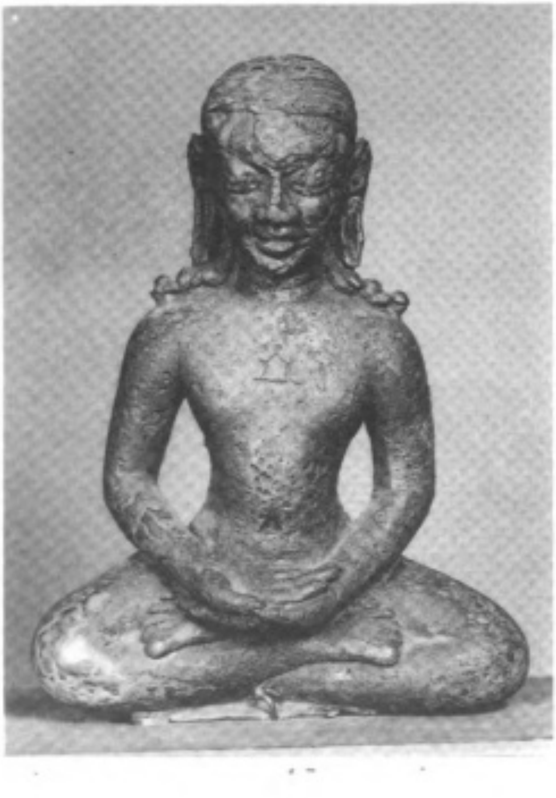
Pl. 21.4. Sandstone image of Balarāma, Devangarh (District Nawadah, Bihar), now in Patna Museum (after C.R.P. Sinha, *op. cit.)*



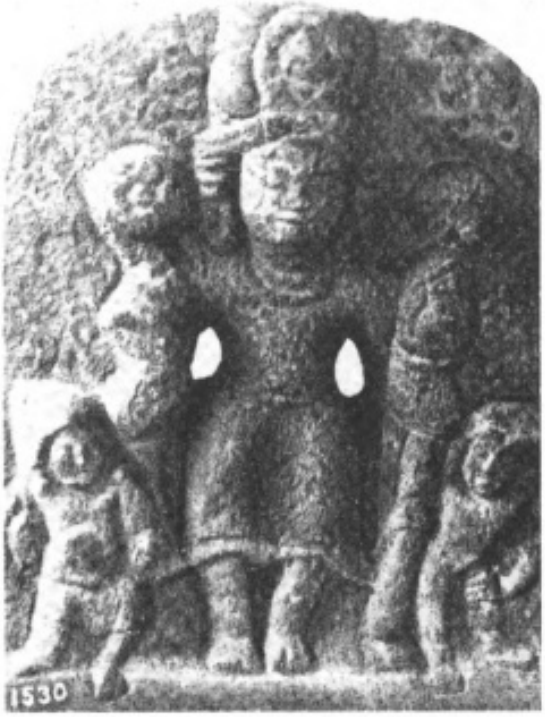
Pl. 21.5. Metal image of Ṛishabhanātha, Chausa (District Bhojpur, Bihar), now in Patna Museum (copyright: American Institute of Indian Studies, Varanasi)



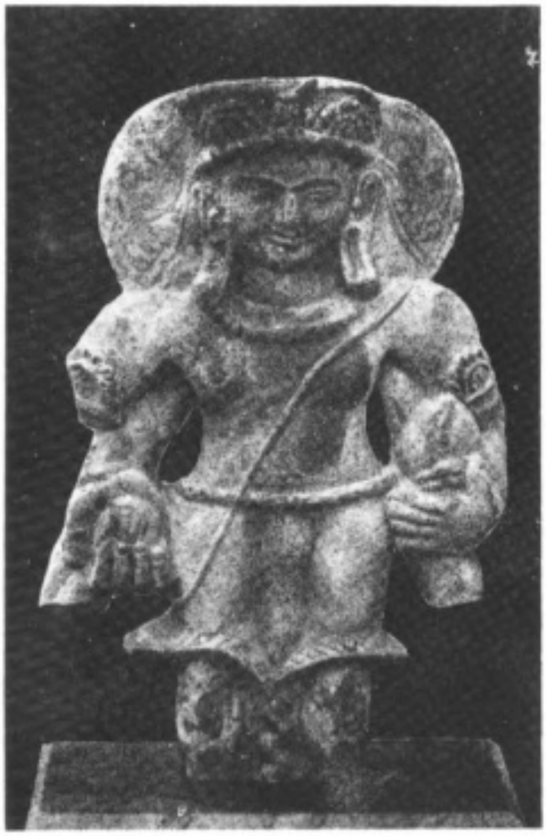
Pl. 21.7. Metal image of a Tīrthaṅkara, Chausa (District Bhojpur, Bihar), now in Patna Museum (after C.R.P. Sinha, *op. cit.*, Pl. 29)



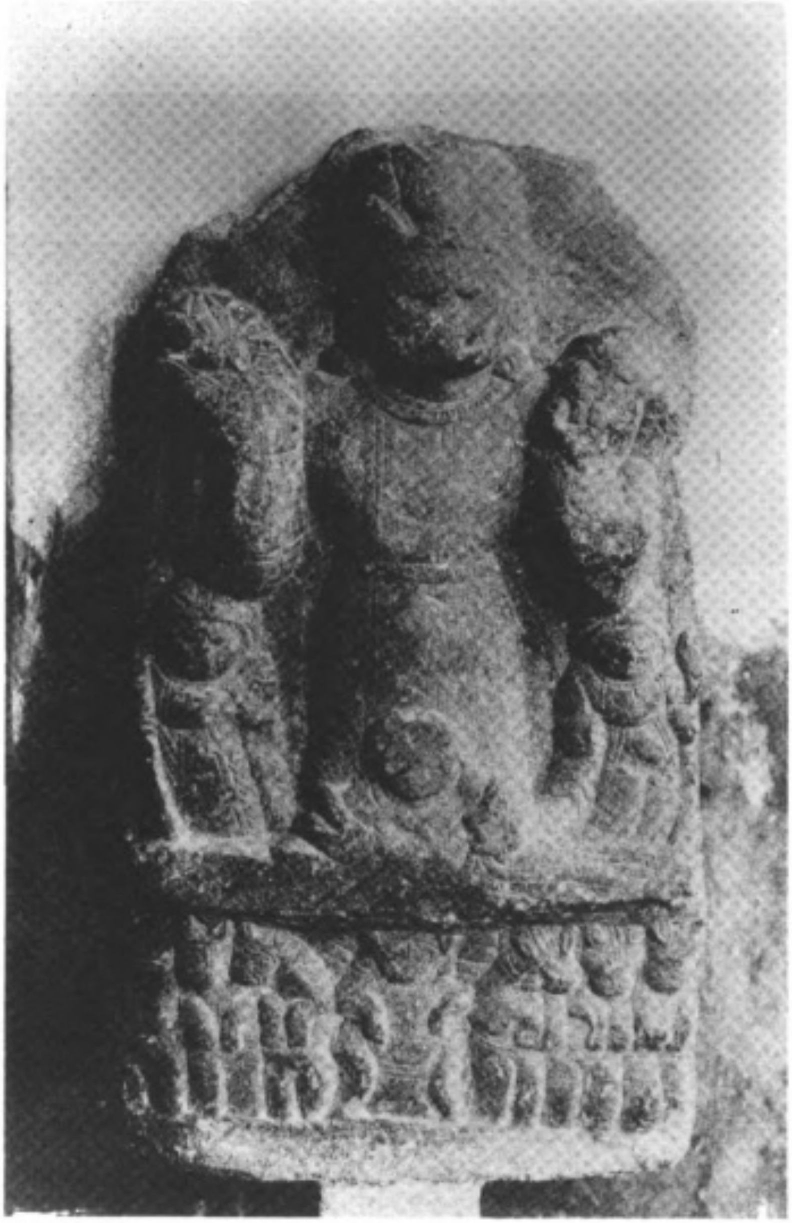
Pl. 21.6. Metal image of Ṛishabhanātha, Chausa (District Bhojpur, Bihar), now in Patna Museum (copyright: American Institute of Indian Studies, Varanasi)



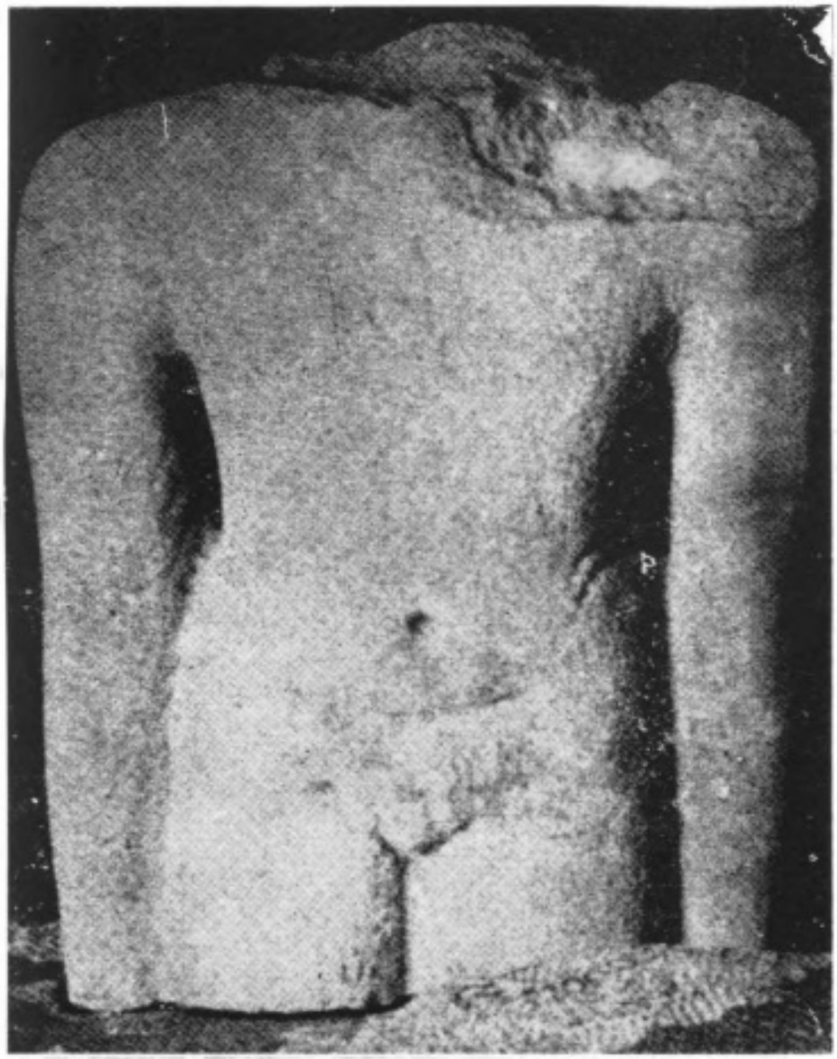
Pl. 21.8. Sandstone image of Sūrya, Niyamatpur (District Rajshahi, Bangladesh), now in Rajshahi Museum (Museum of the Varendra Resarch Society, Rajshahi) (after S.K. Saraswati, *Early Sculpture of Bengal,* 1938, Pl. 1)



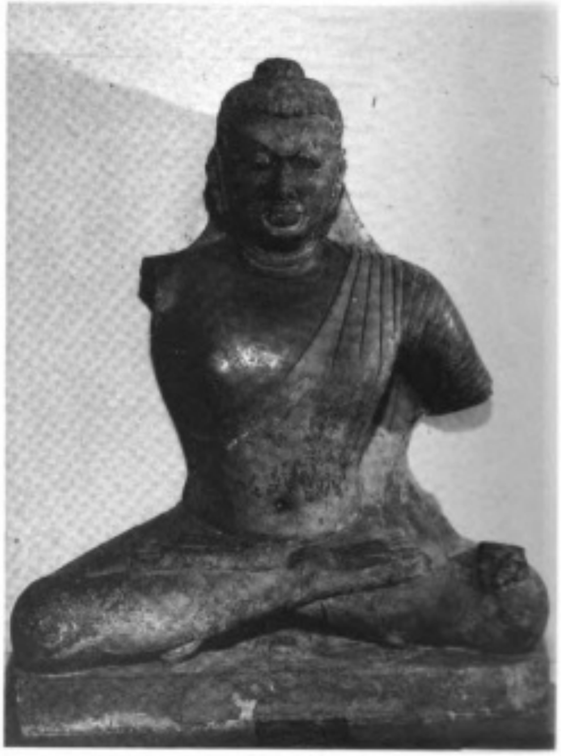
Pl. 21.9. Sandstone image of Vishṇu, Hankrail (District Malda, West Bengal), now in Rajshahi Museum (after S.K. Saraswati, *op. cit.,* Pl. 2)



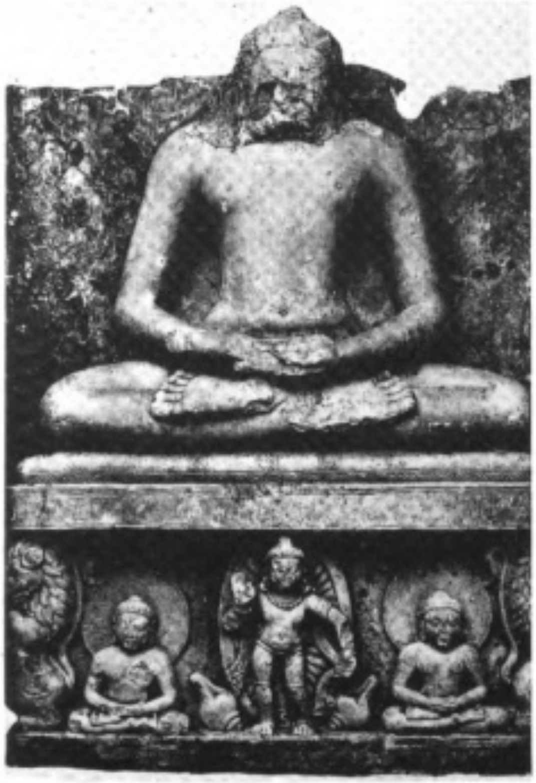
Pl. 21.10. Sandstone image of Sūrya, Kumarpur (District Rajshahi, Bangladesh), now in Rajshahi Museum (after Frederick M. Asher, *The Art of Eastern India, 300-800,* Minnesota, 1980, Pl. 13)



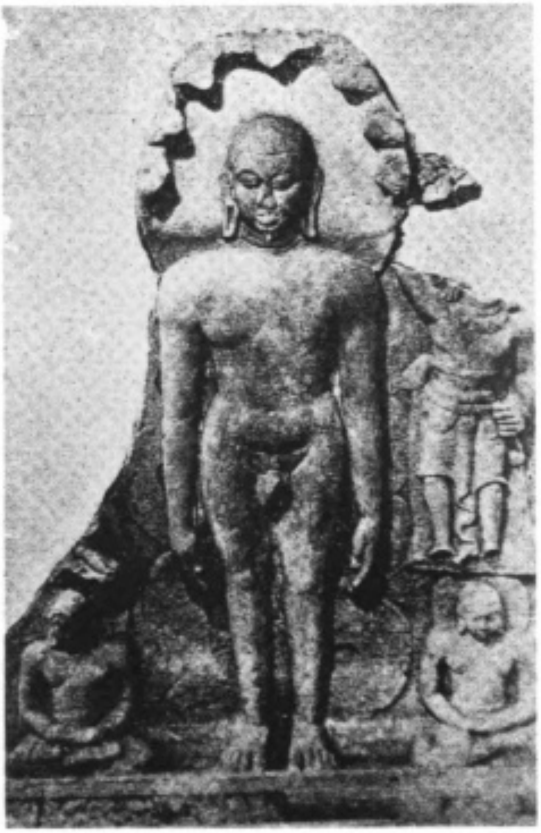
Pl. 21.11. Sandstone torso of a Tīrthaṅkara, Chandraketugarh (District North 24-Parganas), private collection (copyright: G.S. De, Sri Chaitanya College, Habra, District North 24-Parganas)



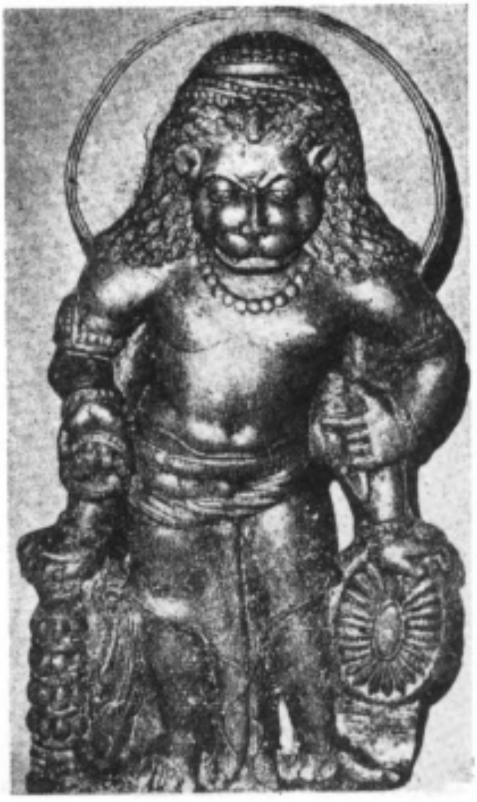
Pl. 21.12. Sandstone image of Buddha of year 64 of Mahārāja Trikamala, Bodh-Gaya, now in Indian Museum, Calcutta (copyright: Indian Museum, Calcutta)



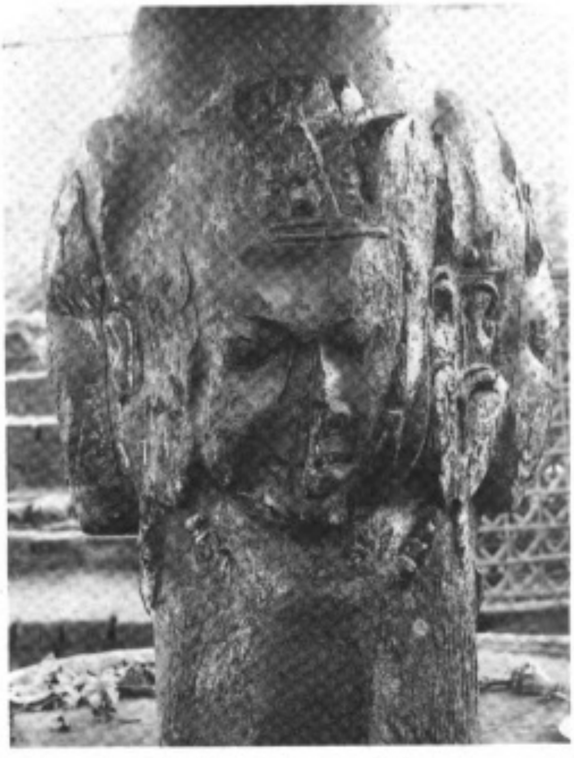
Pl. 21.13. Black stone image of Neminātha, Rajgir, Bihar (copyright: Archaeological Survey of India)



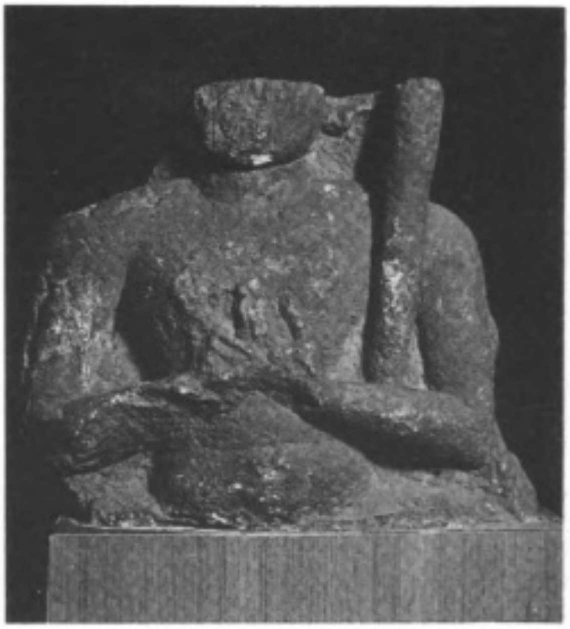
Pl. 21.14. Stone image of Pārśvanātha or Supārśvanātha, Patna, in the collection of Gopikrishna Kanoria (after F.M. Asher, *op. cit.*, Pl. 4)



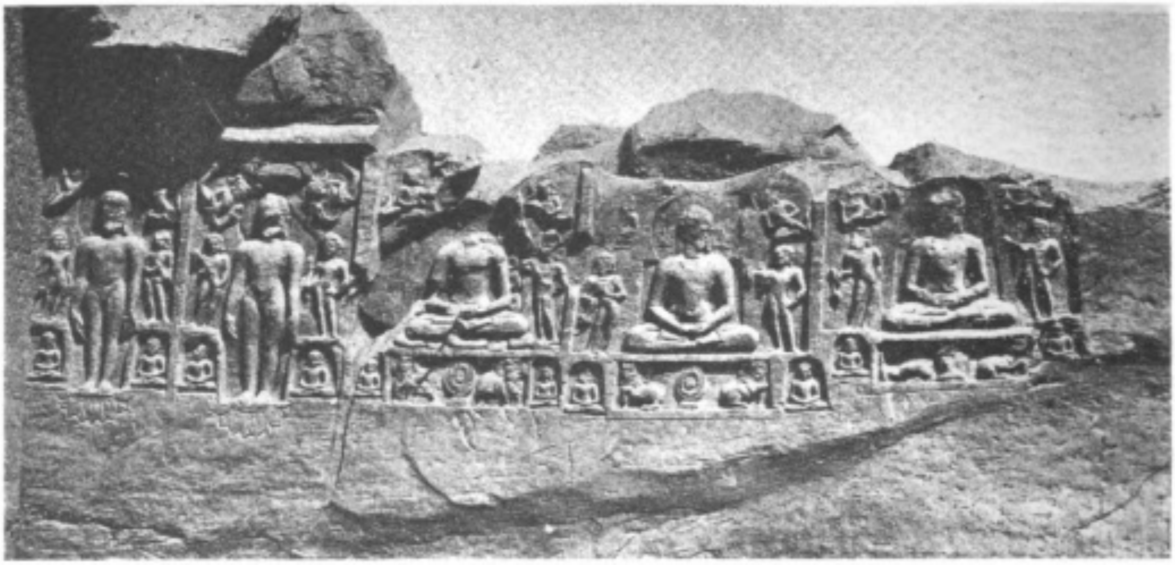
Pl. 21.15. Dark-grey stone image of Narasiṁha, Shahkund (District Bhagalpur, Bihar) (after P.C. Singh, *Journal of the Asiatic Society*, 1963, Pl. facing p. 82)



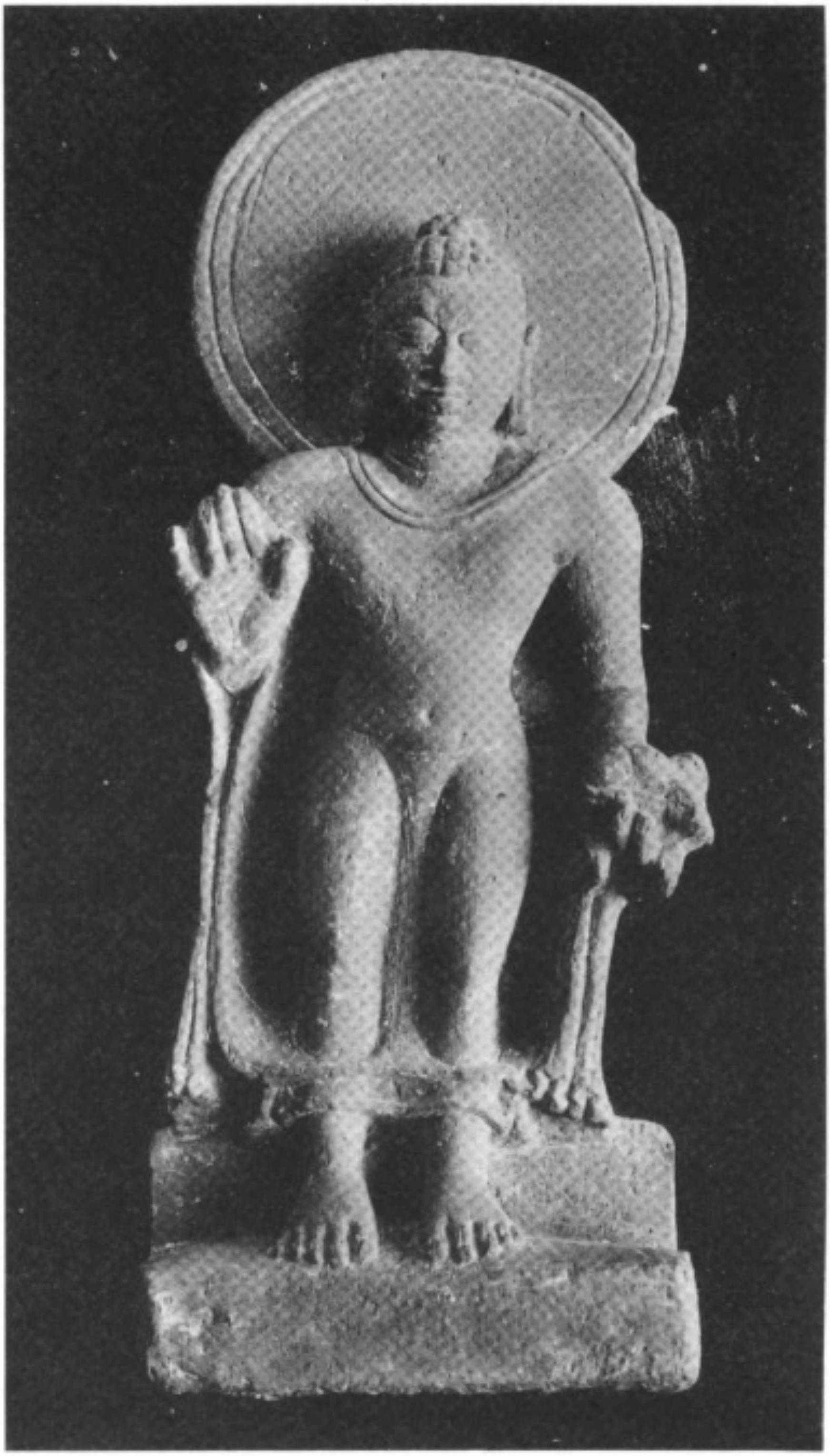
Pl. 21. 16. Black stone *chaturmukha-liṅga* at Vaisali, Bihar (copyright: Gautam Sengupta)



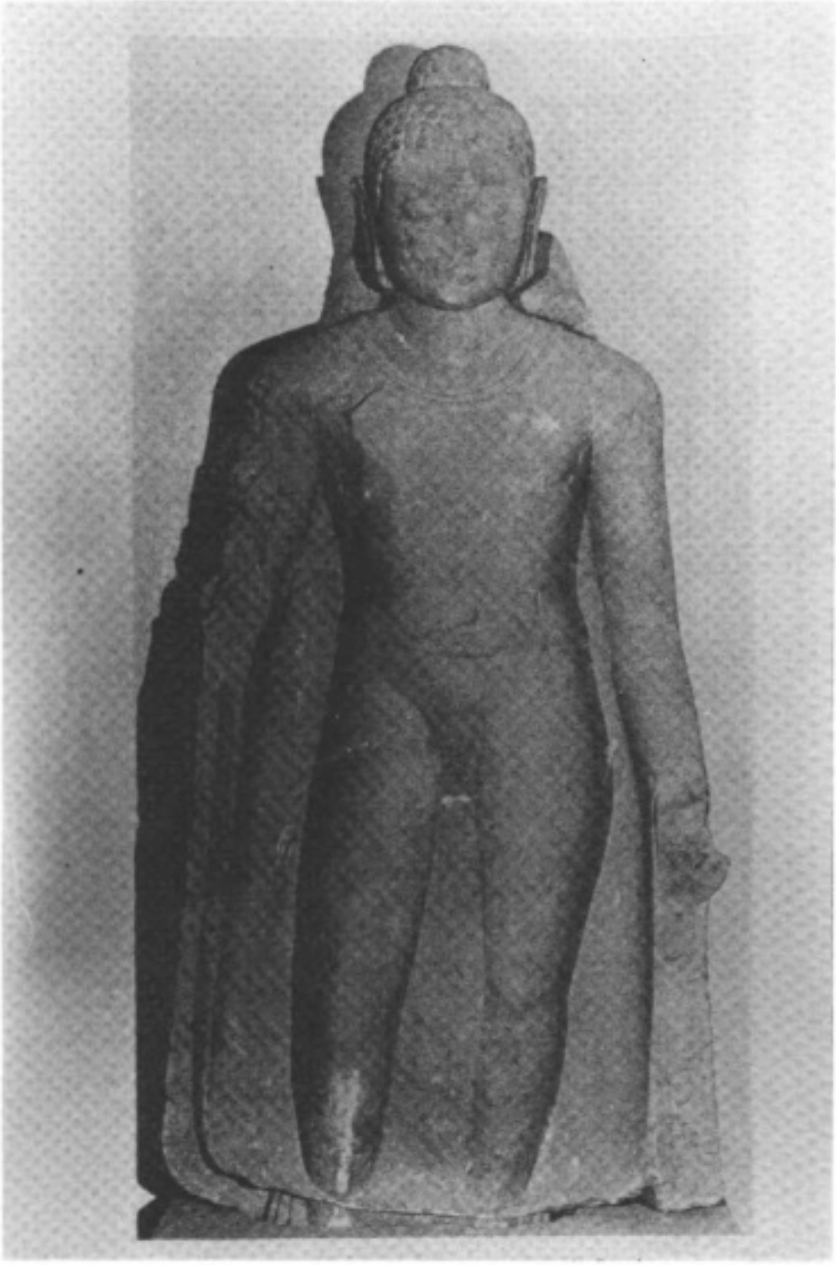
Pl. 21.17. Reddish stone image of Lakulīśa from District Murshidabad (West Bengal), now in Asutosh Museum of Indian Art, Calcutta University (copyright: Asutosh Museum of Indian Art, Calcutta University)



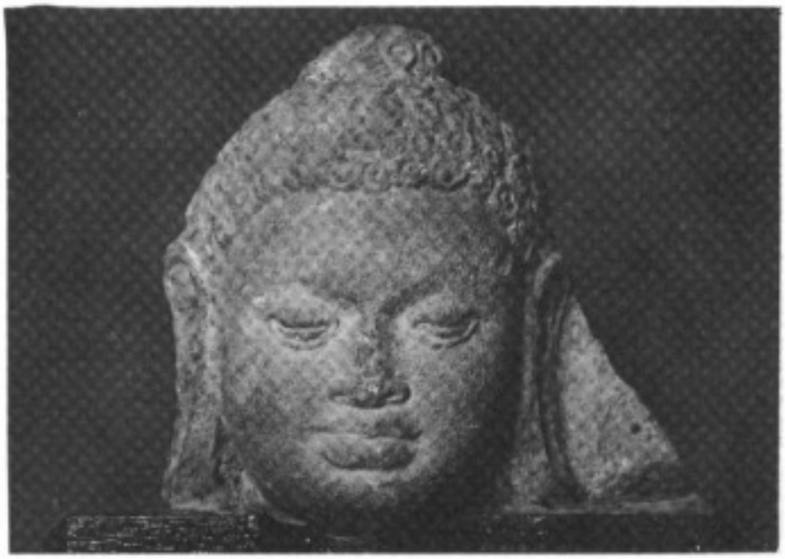
Pl. 21.18. A row of five Tīrthaṅkaras carved on a wall of Sonbhandar Cave, Rajgir, Bihar (copyright: Archaeological Survey of India)



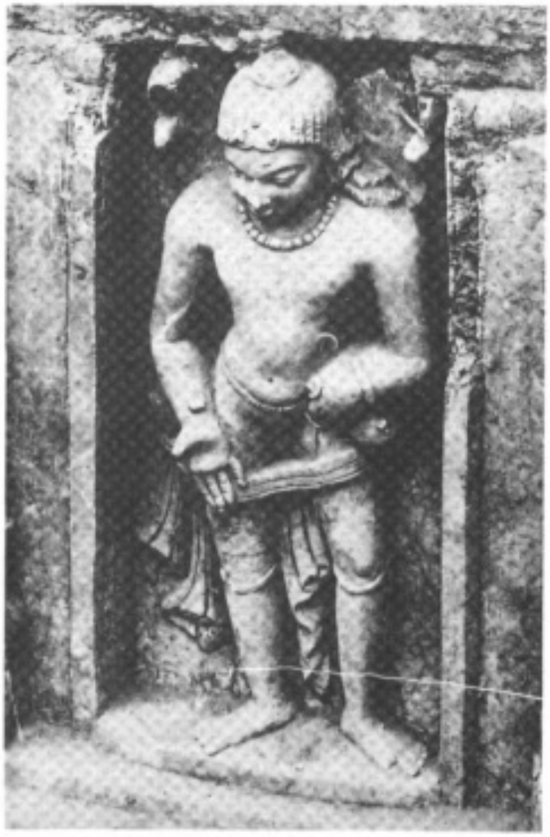
Pl. 21.19. Dark-grey stone image of Buddha, Nalanda, now in Nalanda Museum (copyright: Archaeological Survey of India)



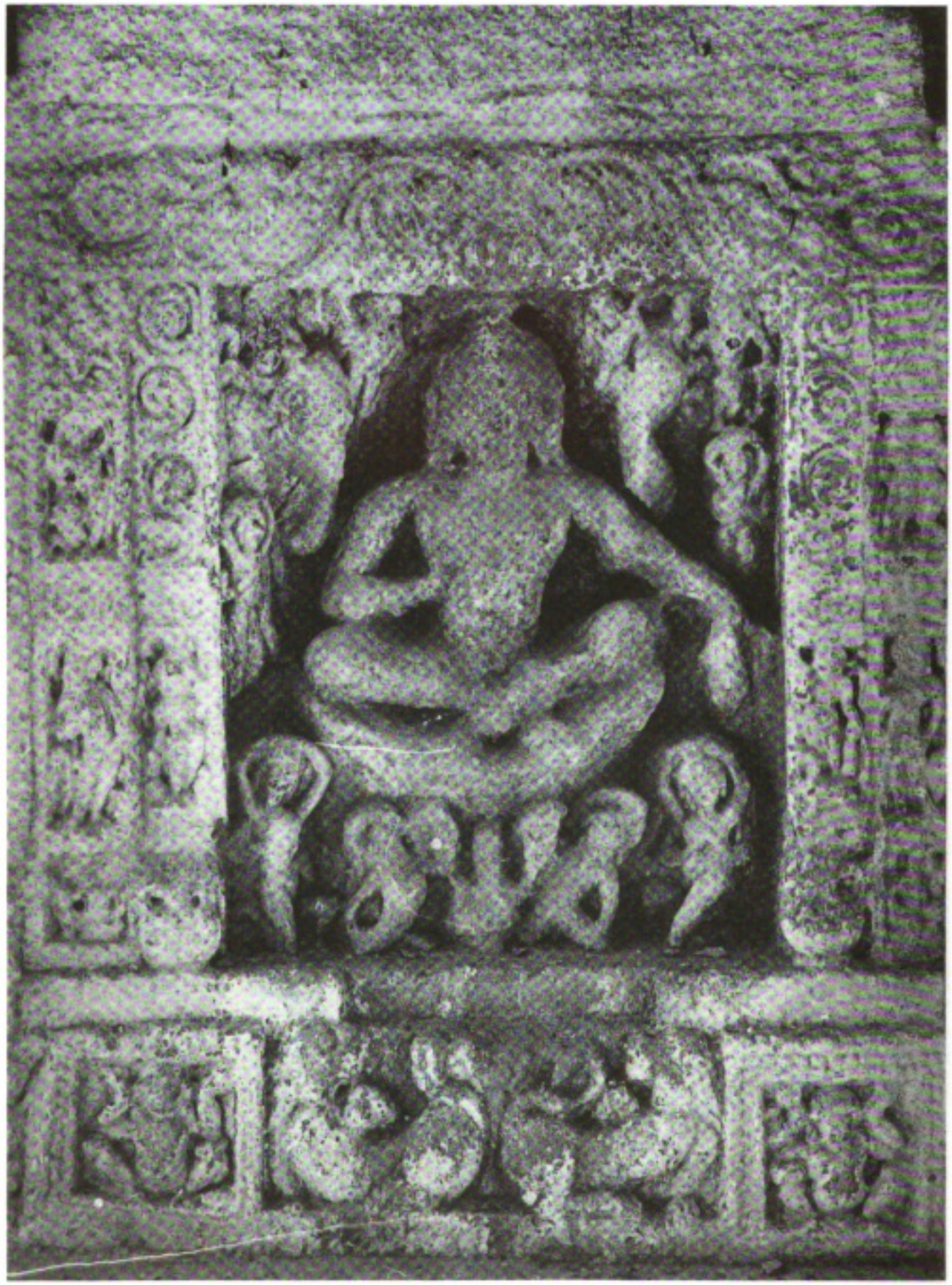
Pl. 21.20. Sandstone image of Buddha, Biharail (District Rajshahi, Bangladesh), now in Rajshahi Museum (after S.K. Saraswati, *op. cit.*, Pl. 4)



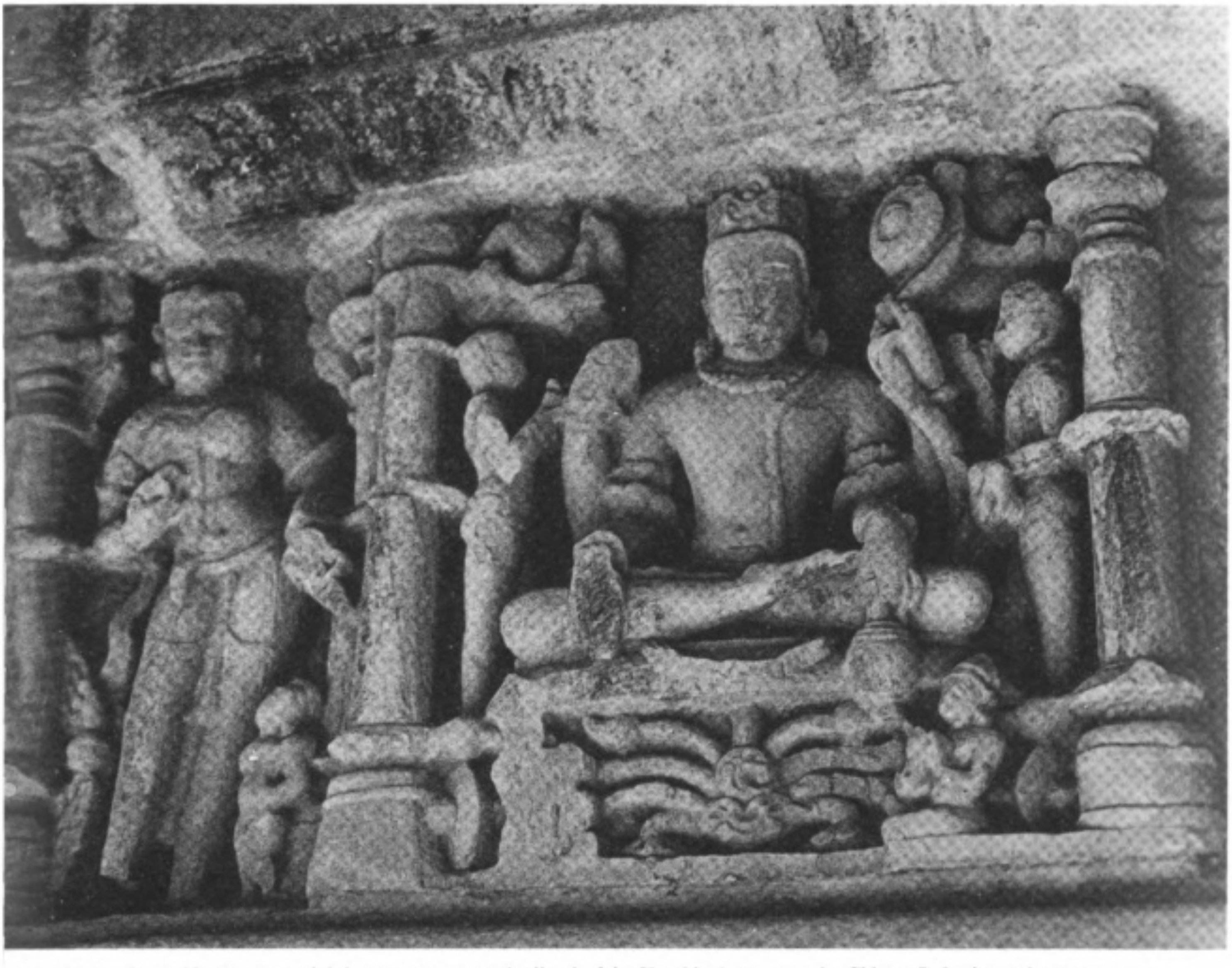
Pl. 21.21. Sandstone head of Buddha, Kumrahar, now in Patna Museum (copyright: American Institute of Indian Studies, Varanasi)



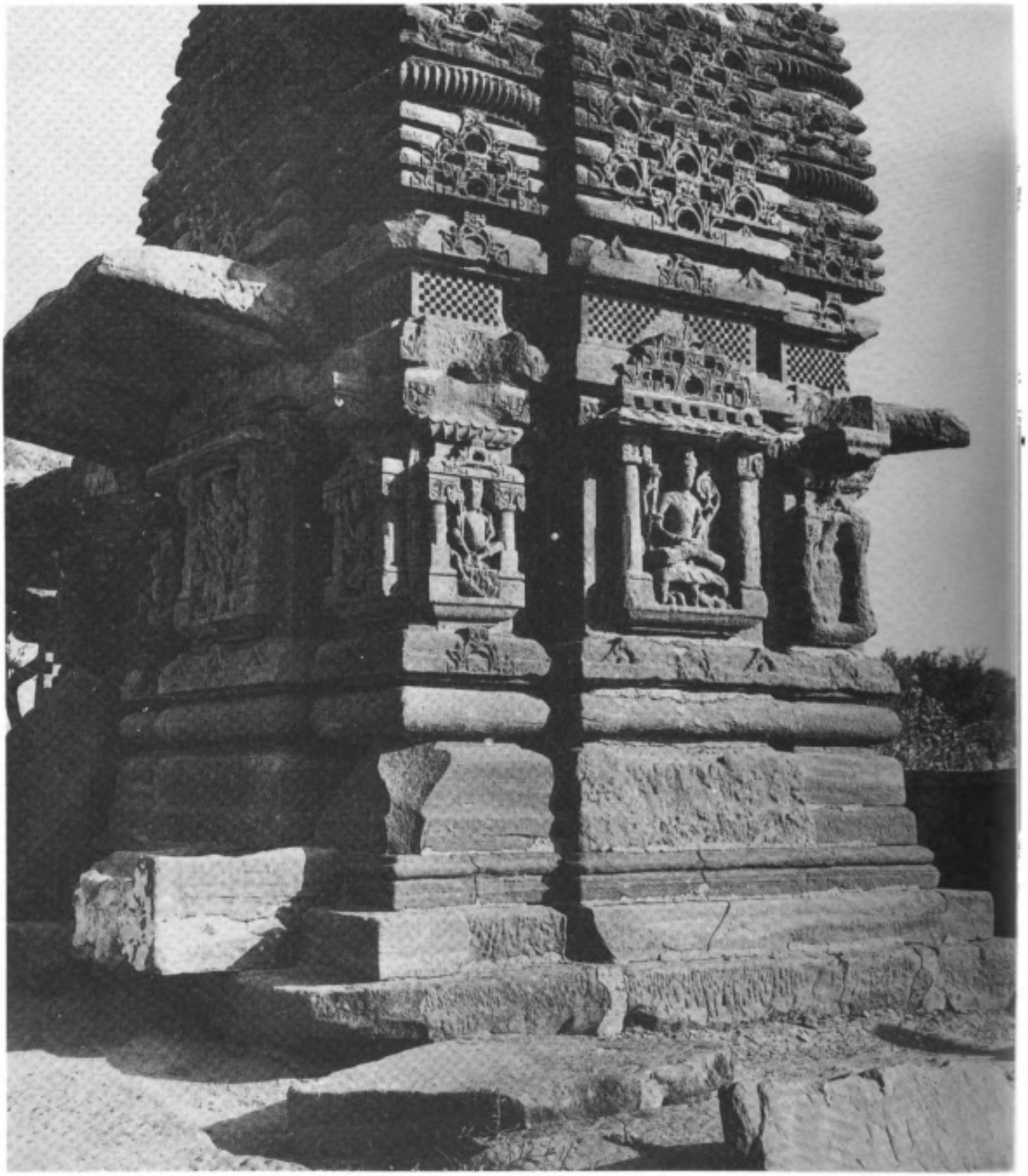
Pl. 21.22. Nāga, Maṇiyār Maṭh at Rajgir, Bihar (copyright: Archaeological Survey of India)



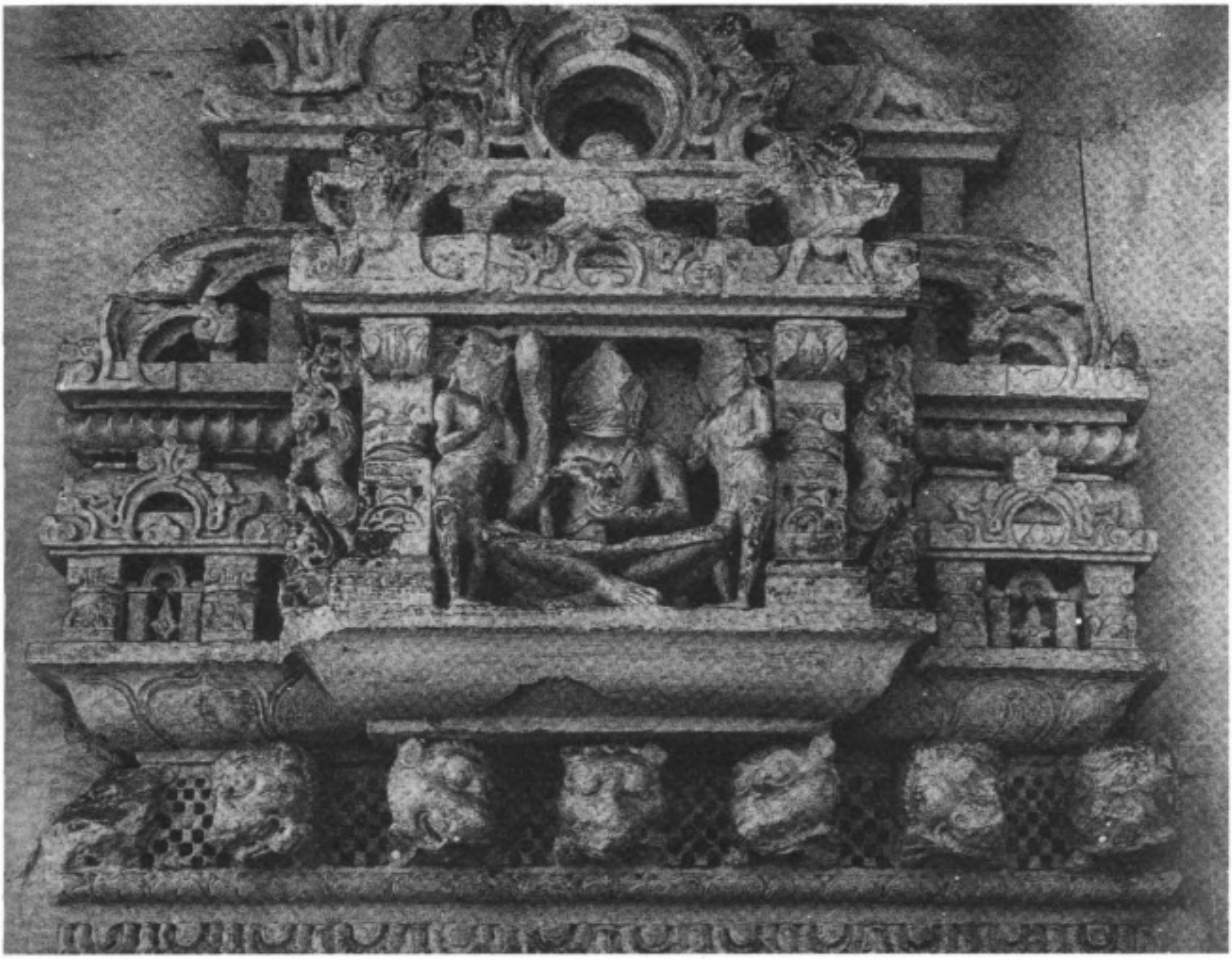
Pl. 22.1. Yogīśvara-Śiva, *c.* seventh century A.D., carved on rockface near a step-well, Mandor, Rajasthan (photo courtesy: M.W. Meister)



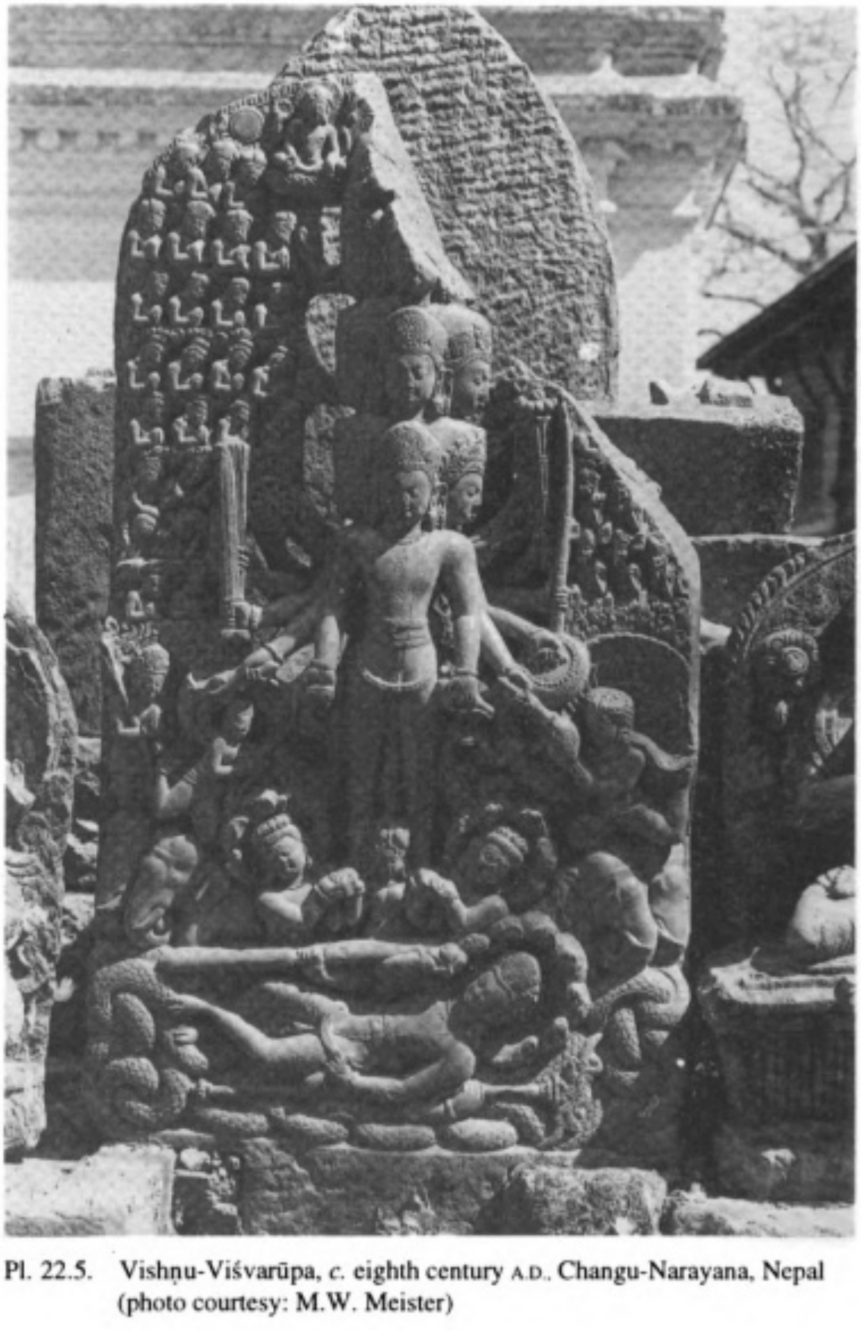
Pl. 22.2. Yoga-Nārāyaṇa, *c.* eighth century A.D., on the lintel of the Kumbhaśyāma temple, Chittor, Rajasthan (photo courtesy: M.W. Meister)



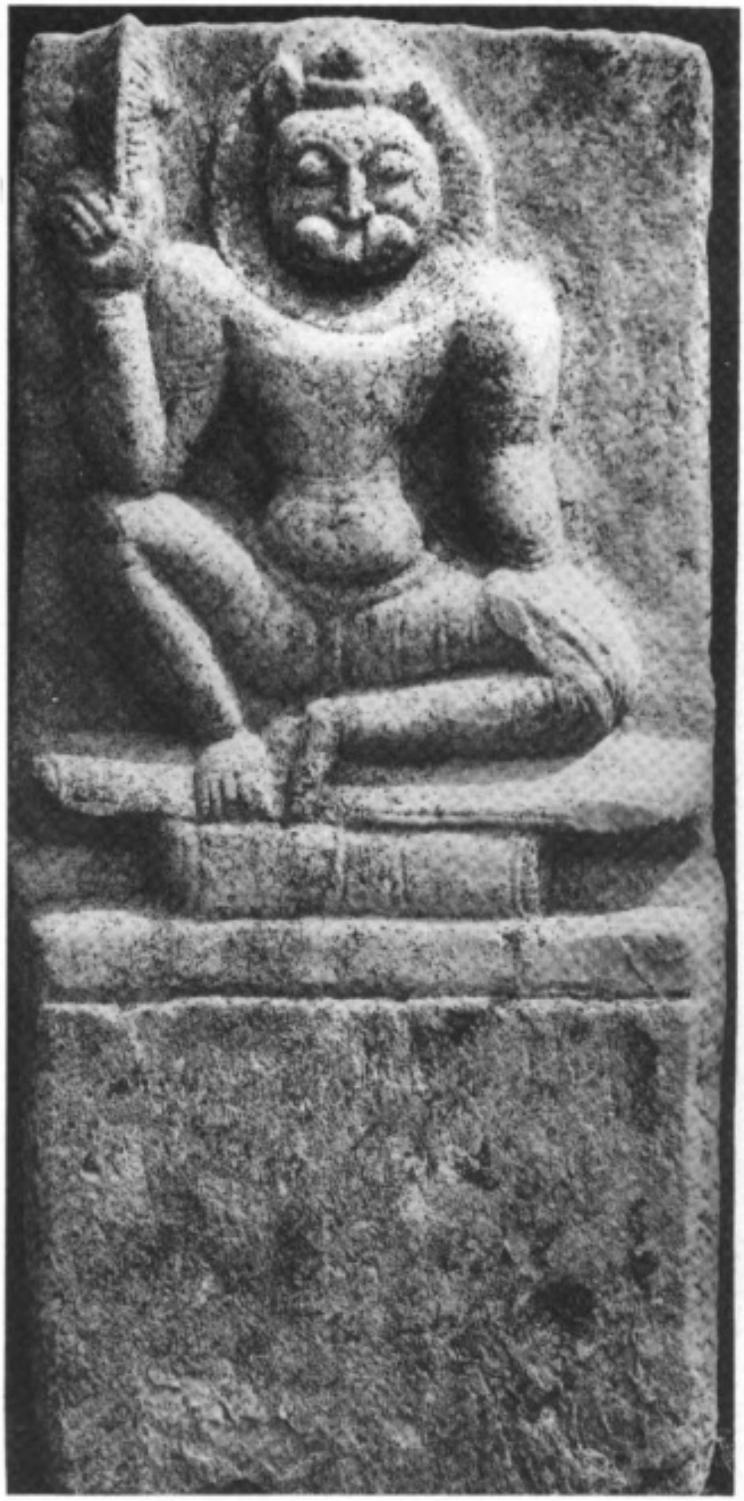
Pl. 22.3. Yoga-Nārāyaṇa in the back *bhadra* niche of the Śiva temple, *c.* A.D. 825, Bhundana, Rajasthan (photo courtesy: American Institute of Indian Studies, Varanasi)



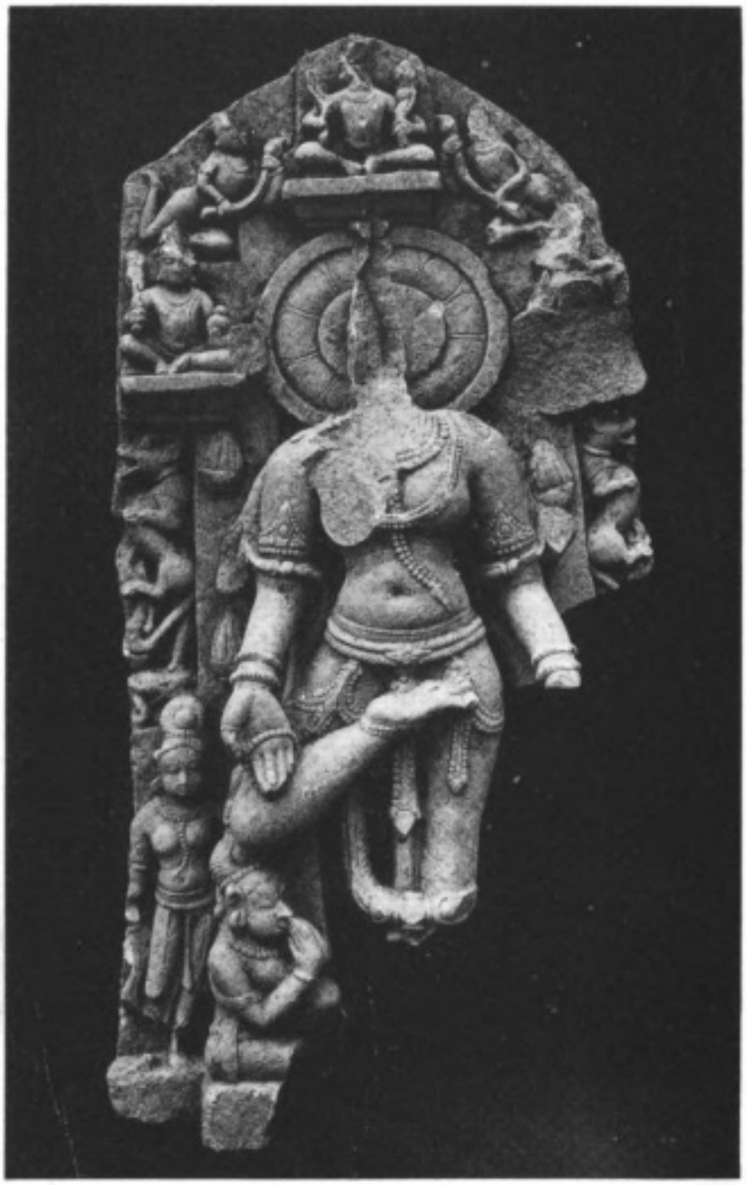
Pl. 22.4. Lakulīśa, *c.* early eighth century A.D., above the south *bhadra* niche, Mahādeva temple, Bithu, Rajasthan (photo courtesy: M.W. Meister)



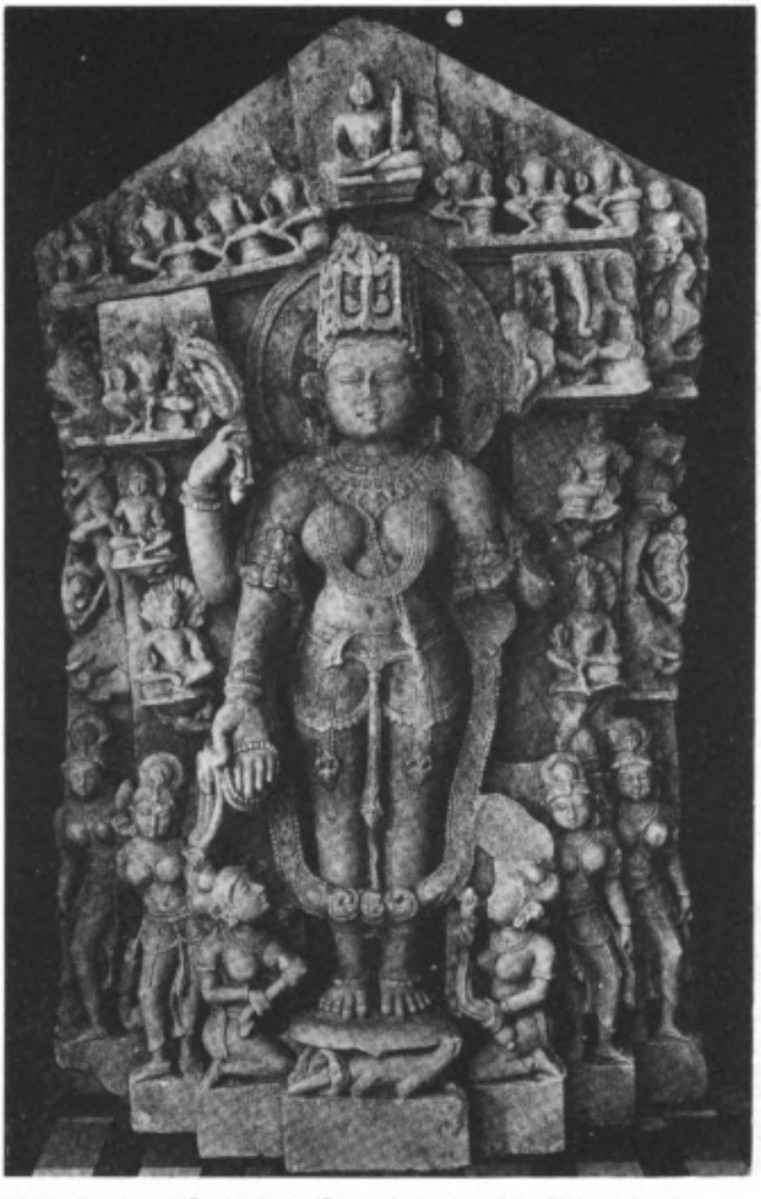
Pl. 22.5. Vishṇu-Viśvarūpa, *c.* eighth century A.D., Changu-Narayana, Nepal (photo courtesy: M.W. Meister)



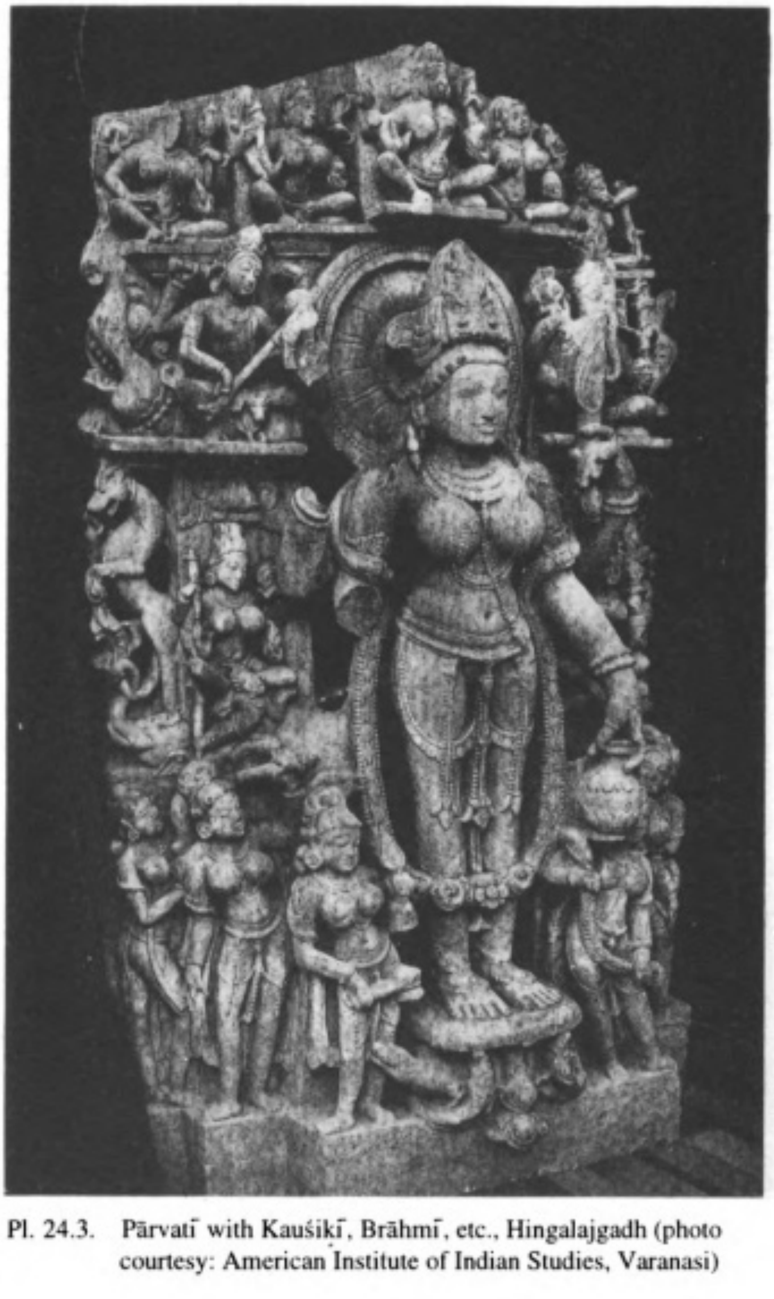
Pl. 23.1. Kevala-Narasiṁha, Mothadaka, now in Site Museum, Amaravati



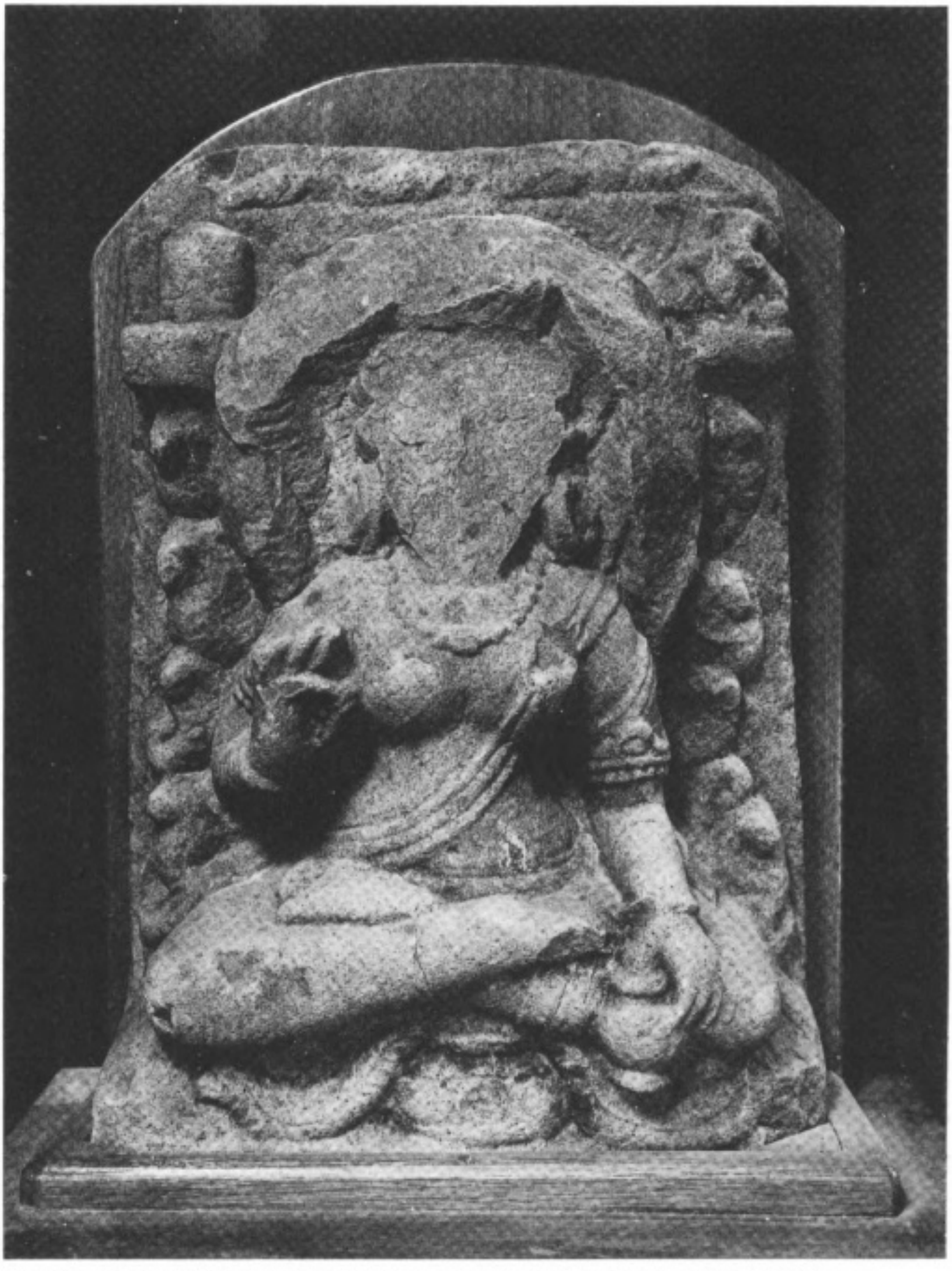
Pl. 24.1. Eka-pāda-sthitā Gaurī, Hingalajgadh (photo courtesy: American Institute of Indian Studies, Varanasi)



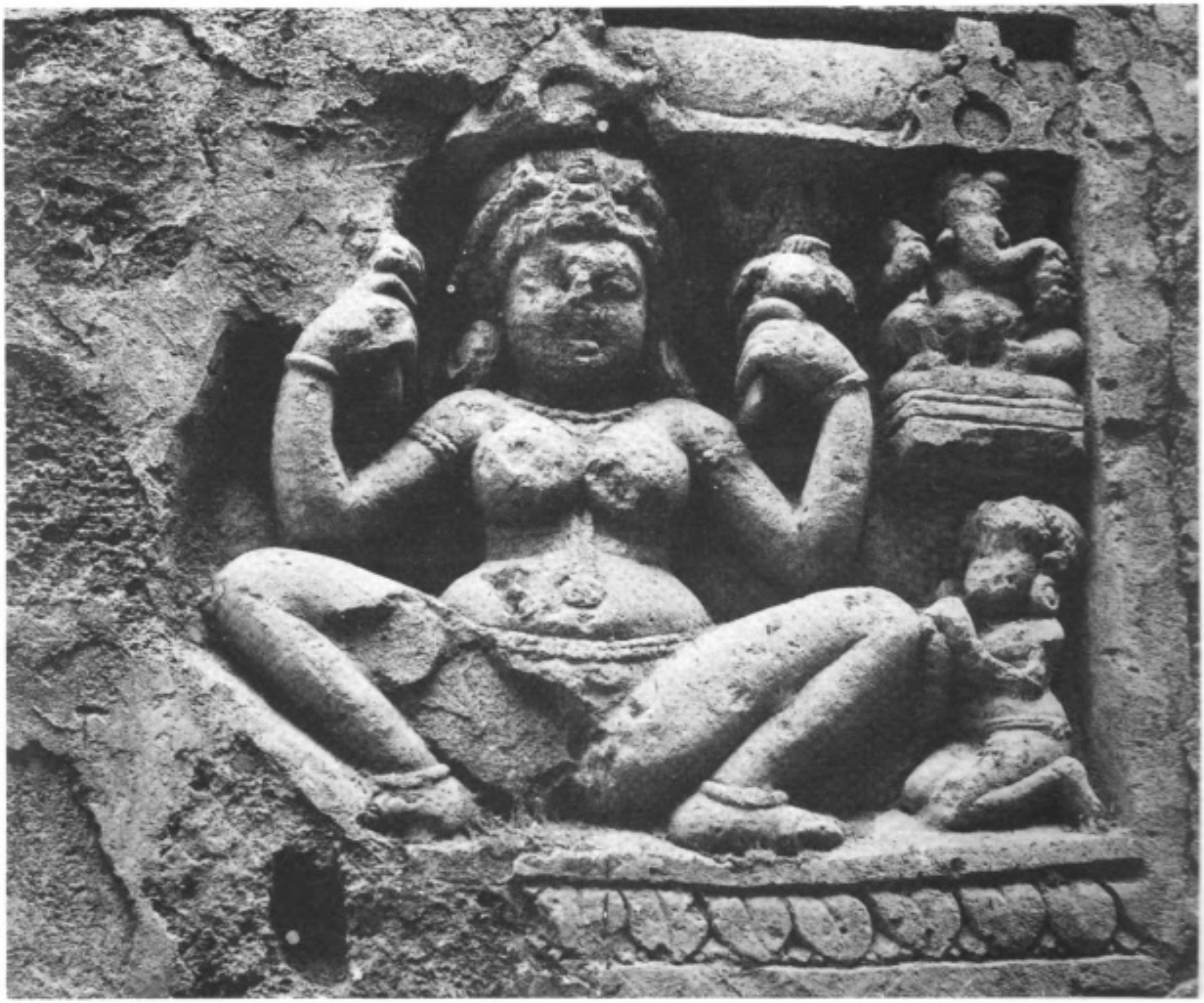
Pl. 24.2. Pārvatī with Lakulīśa and Nava-grahas, Hingalajgadh (photo courtesy: American Institute of Indian Studies, Varanasi)



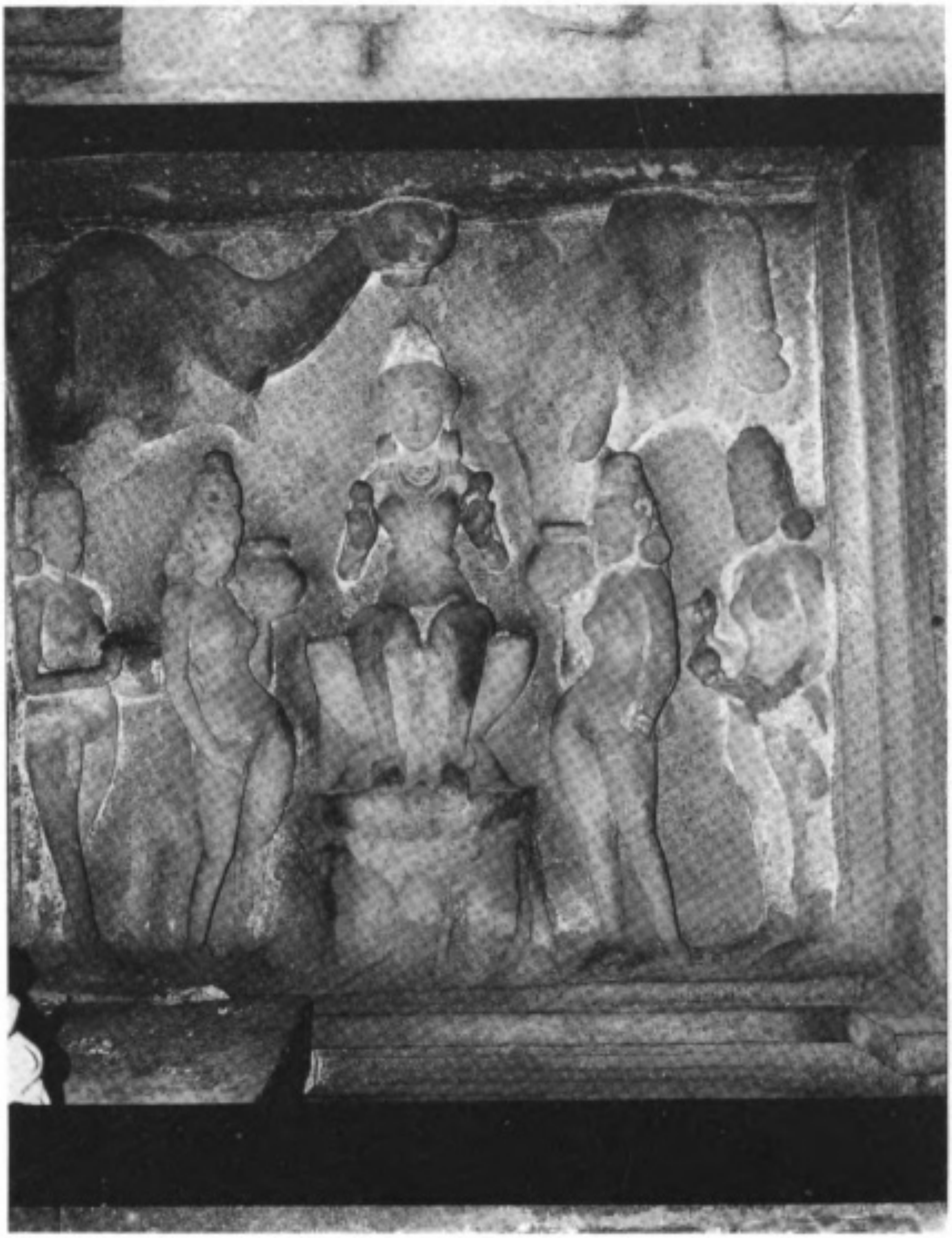
Pl. 24.3. Pārvatī with Kauśikī, Brāhmī, etc., Hingalajgadh (photo courtesy: American Institute of Indian Studies, Varanasi)



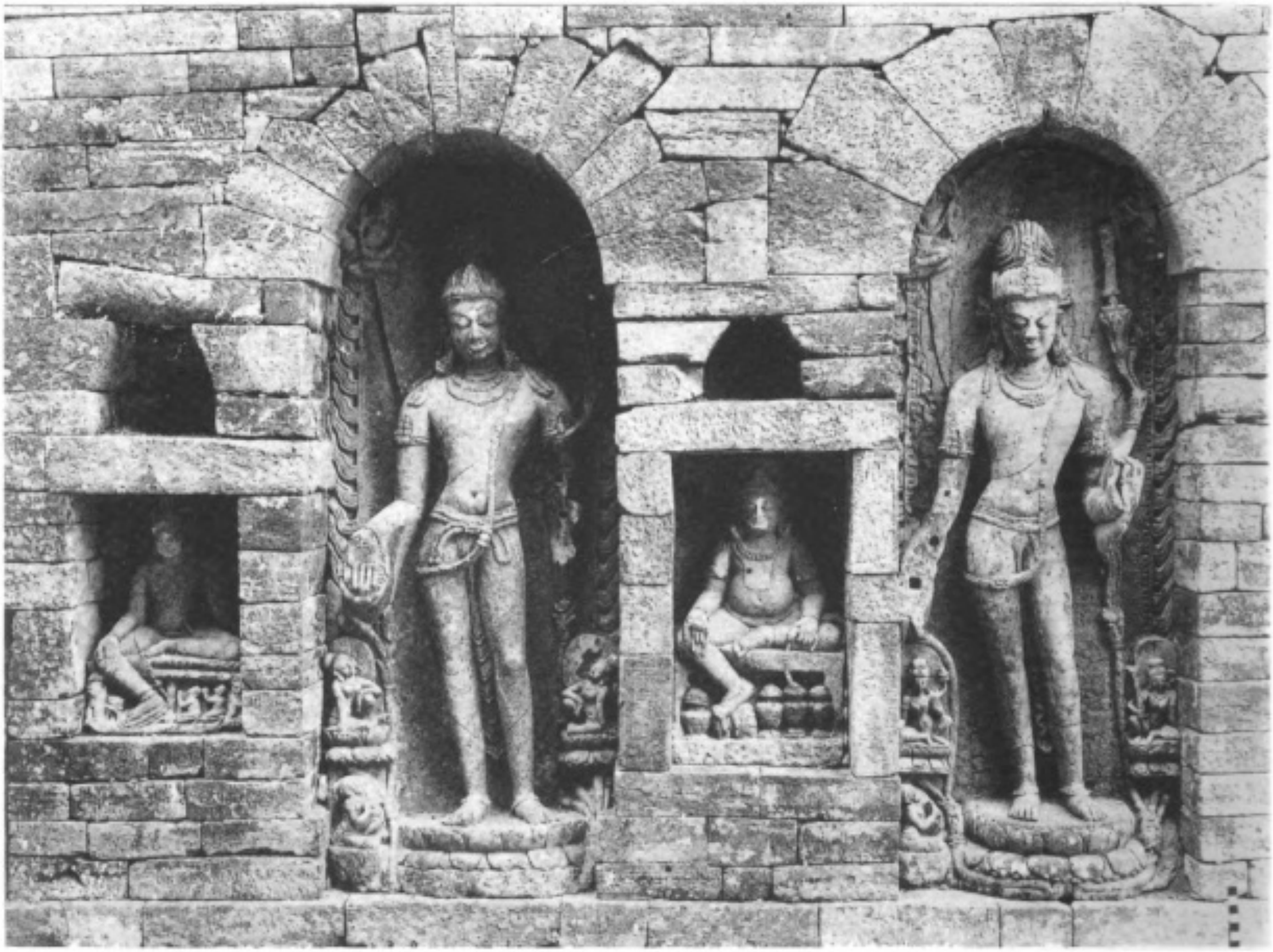
Pl. 24.4. Jagadgaurī Manasā, Sivadvara, Mirjapur (photo courtesy: American Institute of Indian Studies, Varanasi)



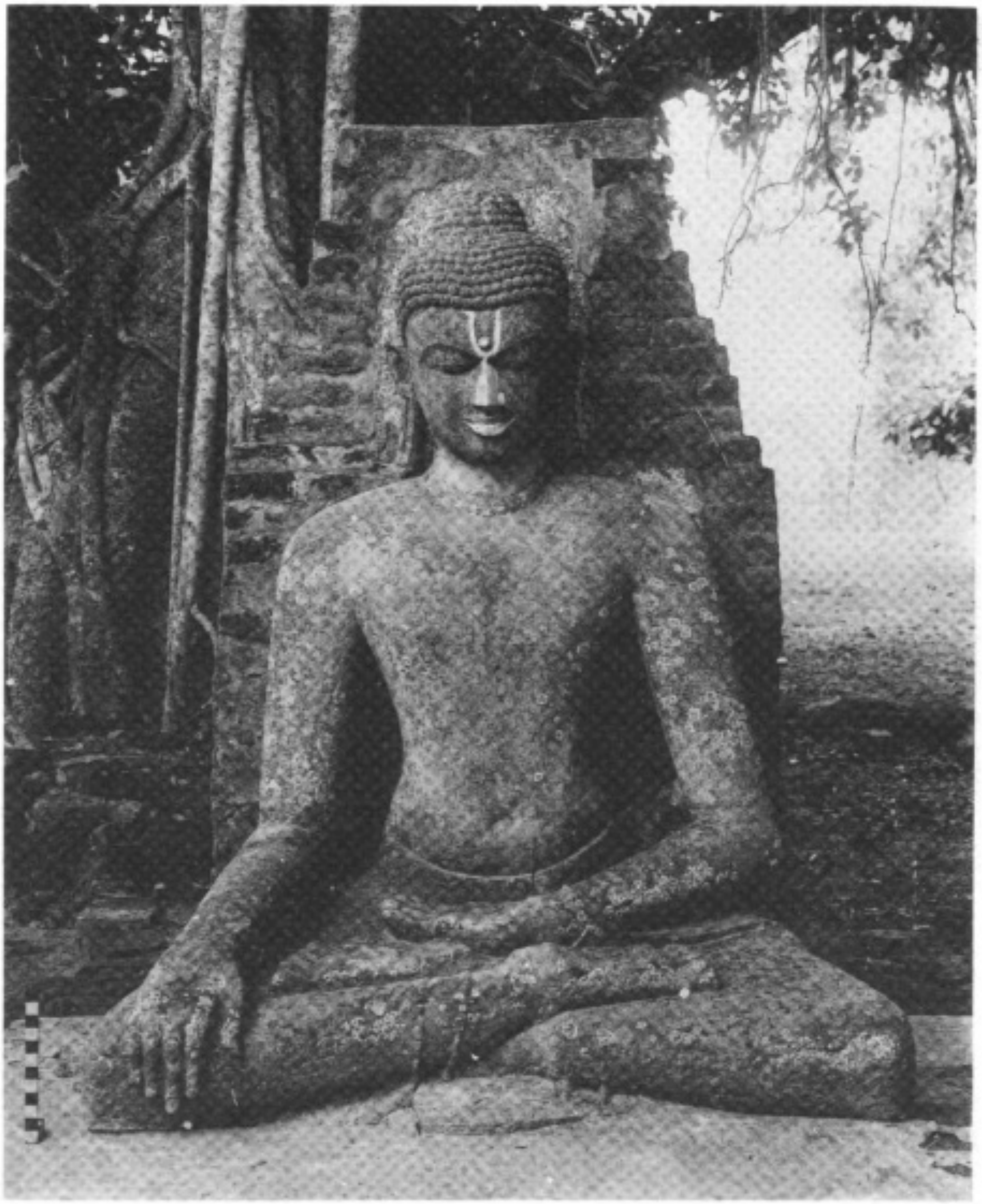
Pl. 24.5. Lajjā-Gaurī, Dhank (photo courtesy: American Institute of Indian Studies, Varanasi)



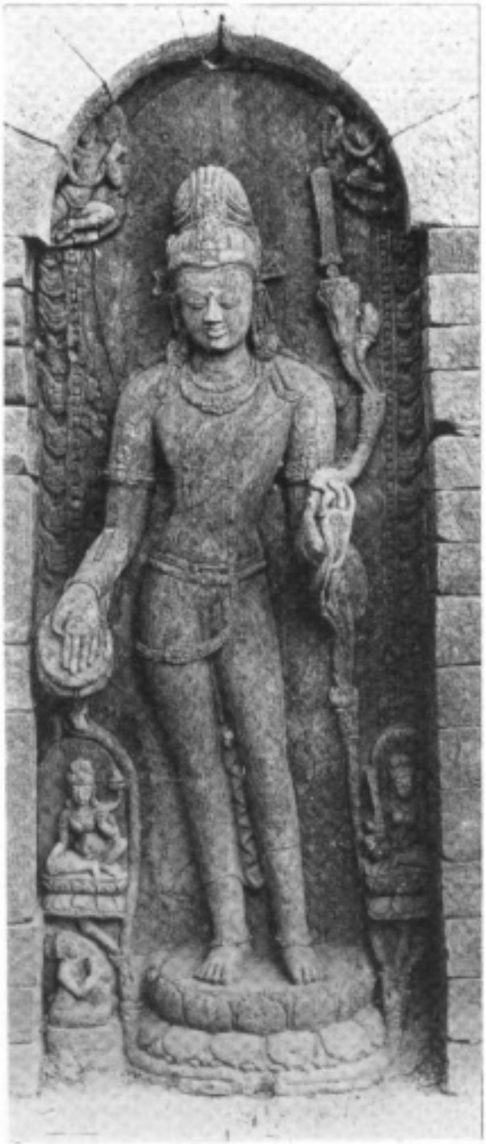
Pl. 25.1. Gaja-Lakshmī with four river-deities, Ādivarāha-*maṇḍapa*, Mamallapuram (photo courtesy: Adalbert J. Gail)



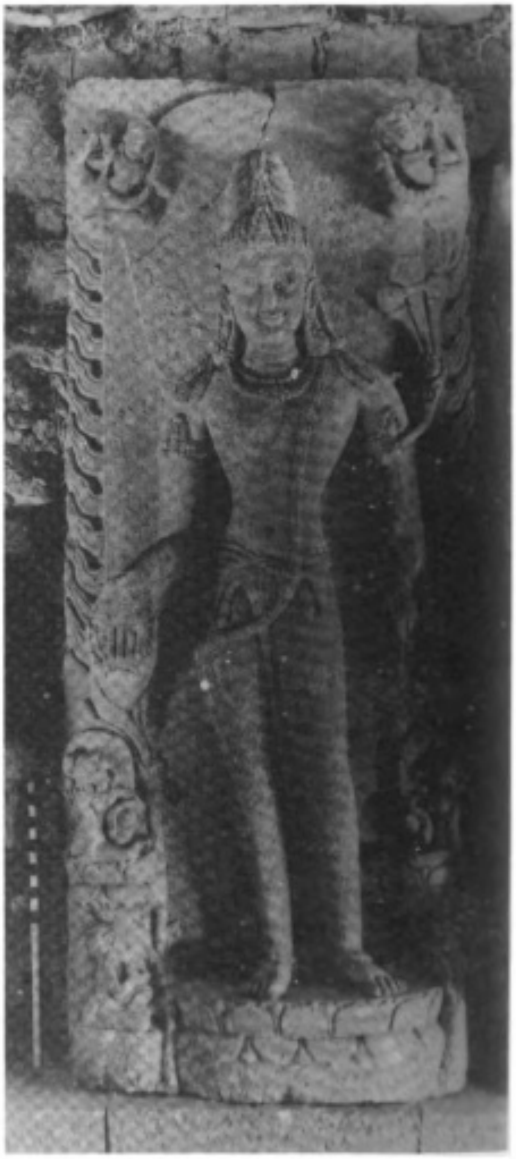
Pl. 26.1. A view of one of the exterior walls of an unfinished modern temple (before demolition) in the compound of a *maṭha* on the Laṇḍā hill, Lalitagiri (copyright: Archaeological Survey of India, abbreviated ASI)



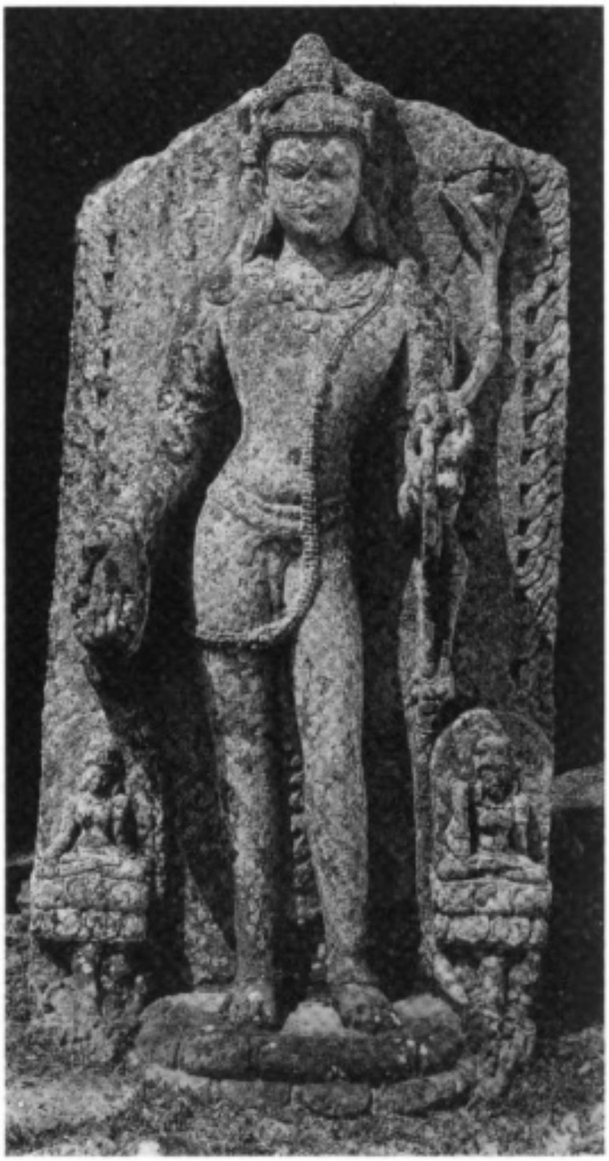
Pl. 26.2. Khondalite image of Buddha before its shifting to Sculpture-shed on the Laṇḍā hill, Lalitagiri (copyright: ASI)



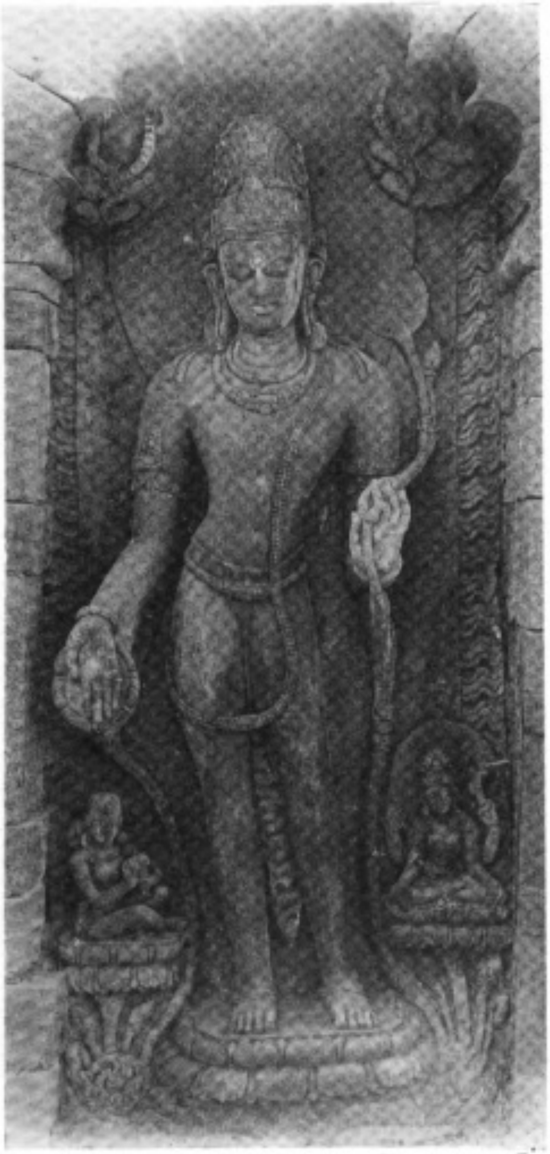
Pl. 26.3. Khondalite image of Samantabhadra within a niche of a modern temple, now in Sculpture-shed, Lalitagiri (copyright: ASI)



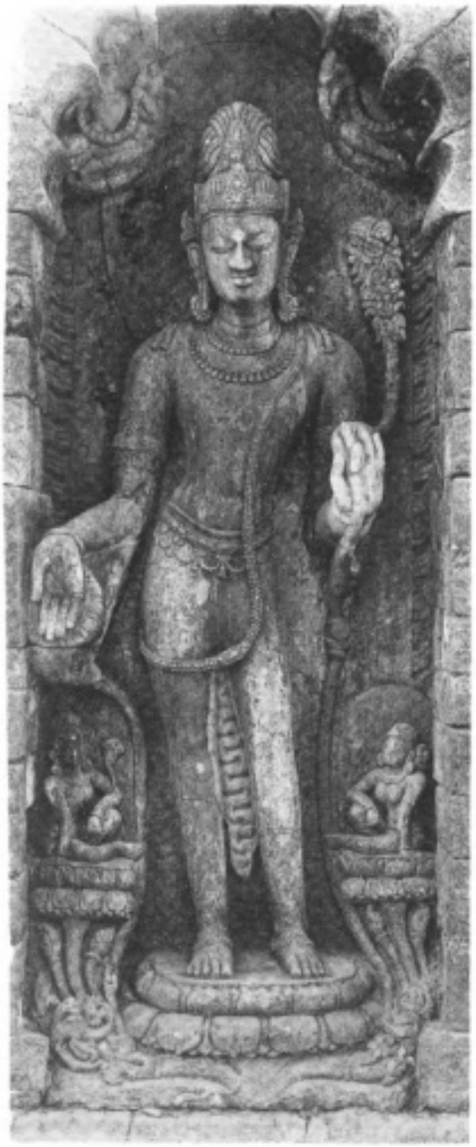
Pl. 26.4. Khondalite image of Kshitigarbha before its shifting to Sculpture-shed, Lalitagiri (copyright: ASI)



Pl. 26.5. Khondalite image of Mañjuśrī, Sculpture-shed, Lalitagiri (copyright: ASI)

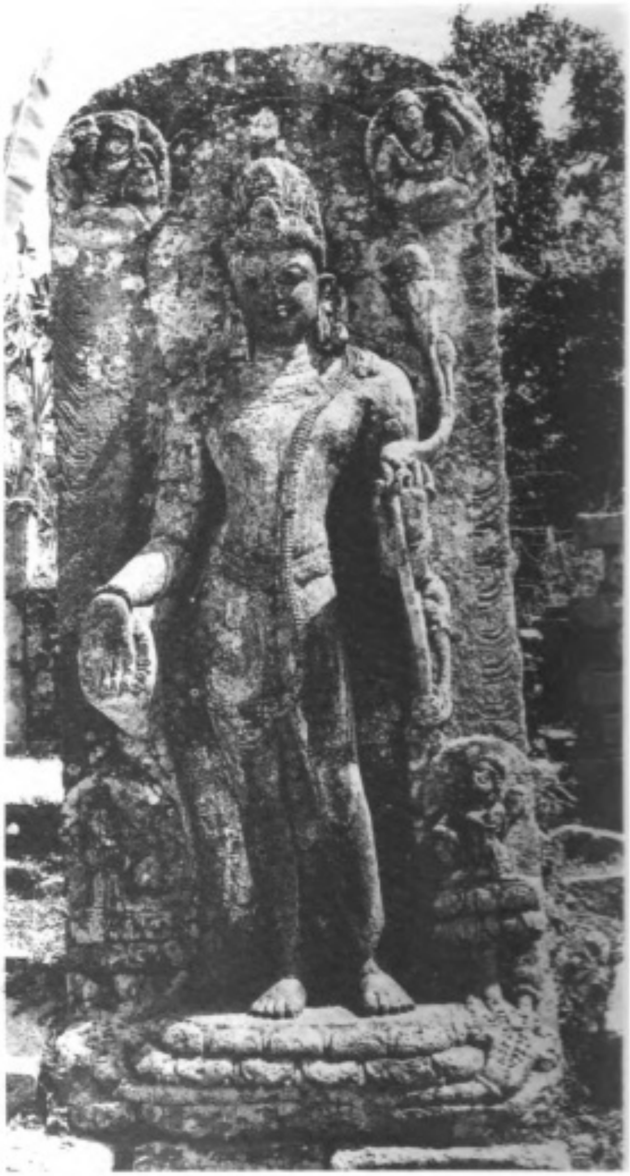


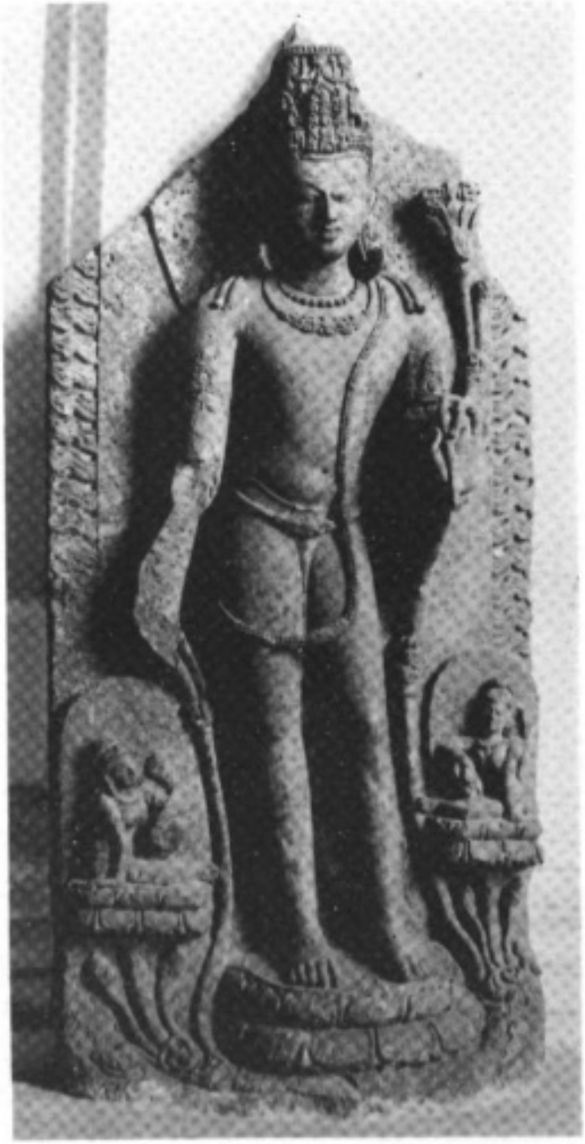
Pl. 26.6. Khondaḷite image of Avalokiteśvara within a niche of a modern temple, now in Sculpture-shed, Lalitagiri (copyright: ASI)



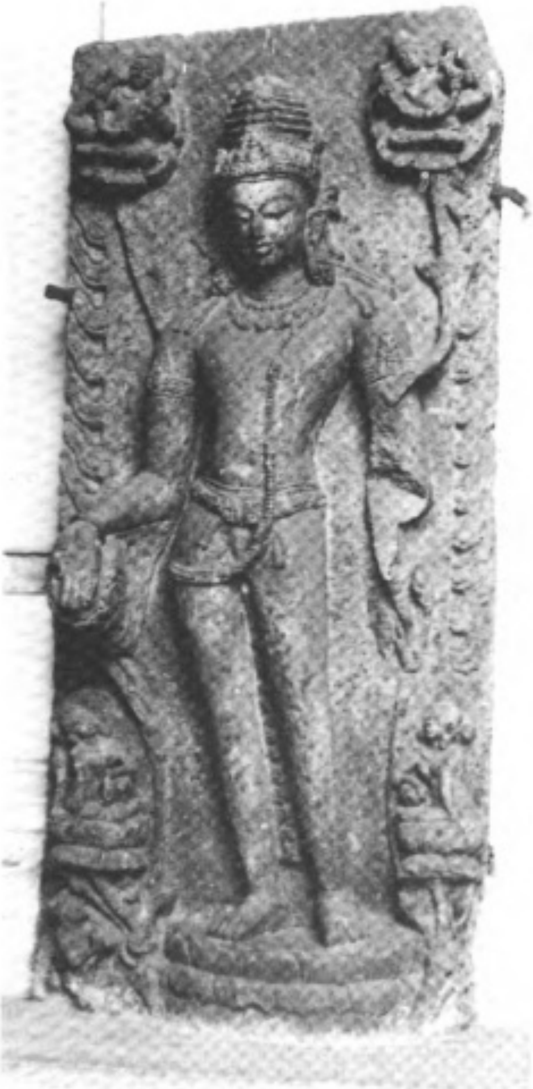
Pl. 26.7. Khondalite image of Maitreya within a niche of a modern temple, now in Sculpture-shed, Lalitagiri (copyright: ASI)

Pl. 26.8. Khondalite image of Ākāśagarbha from Lalitagiri, now against the compound-wall of the Hanumān temple at Mahanga (copyright: ASI)

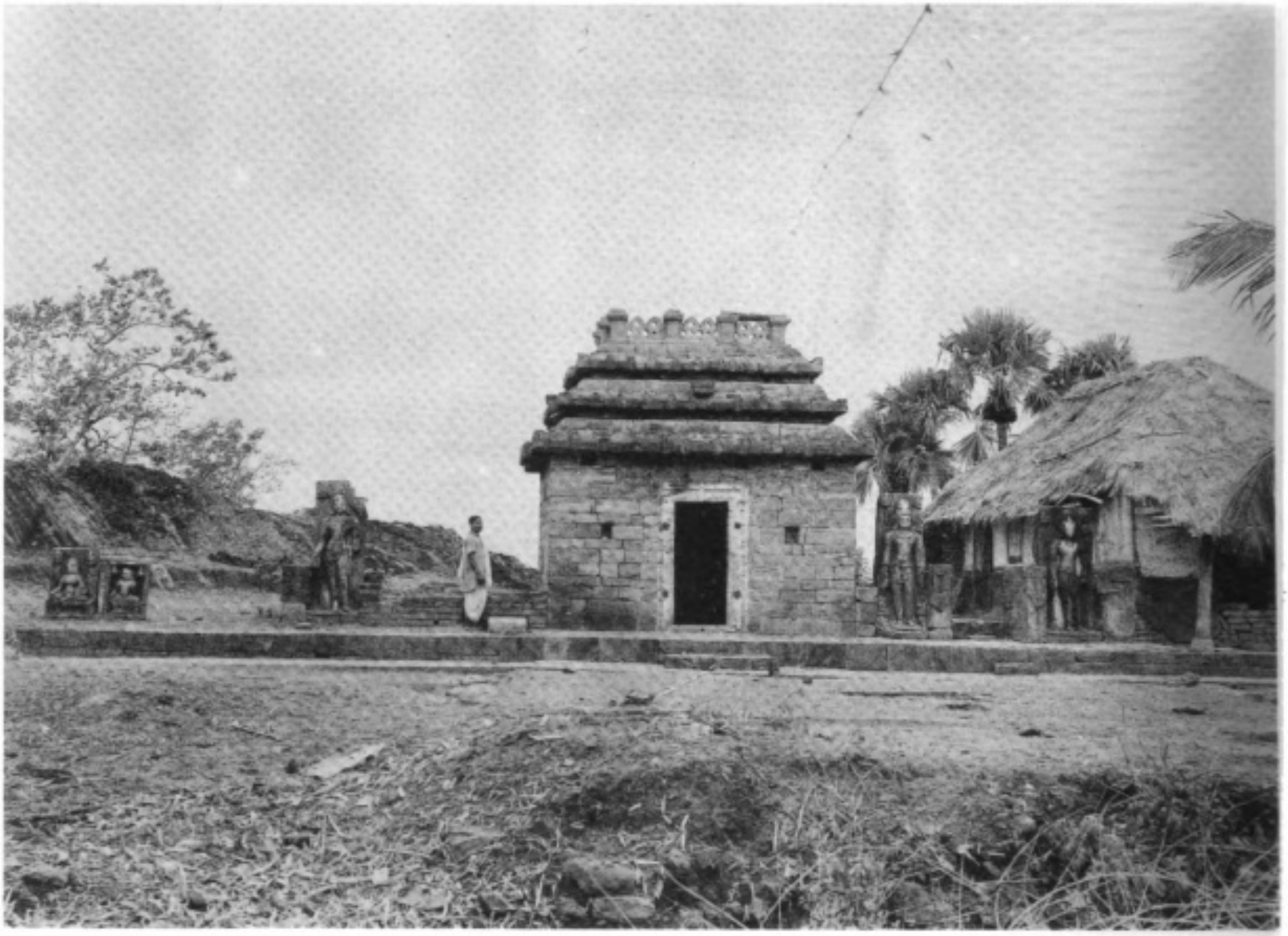




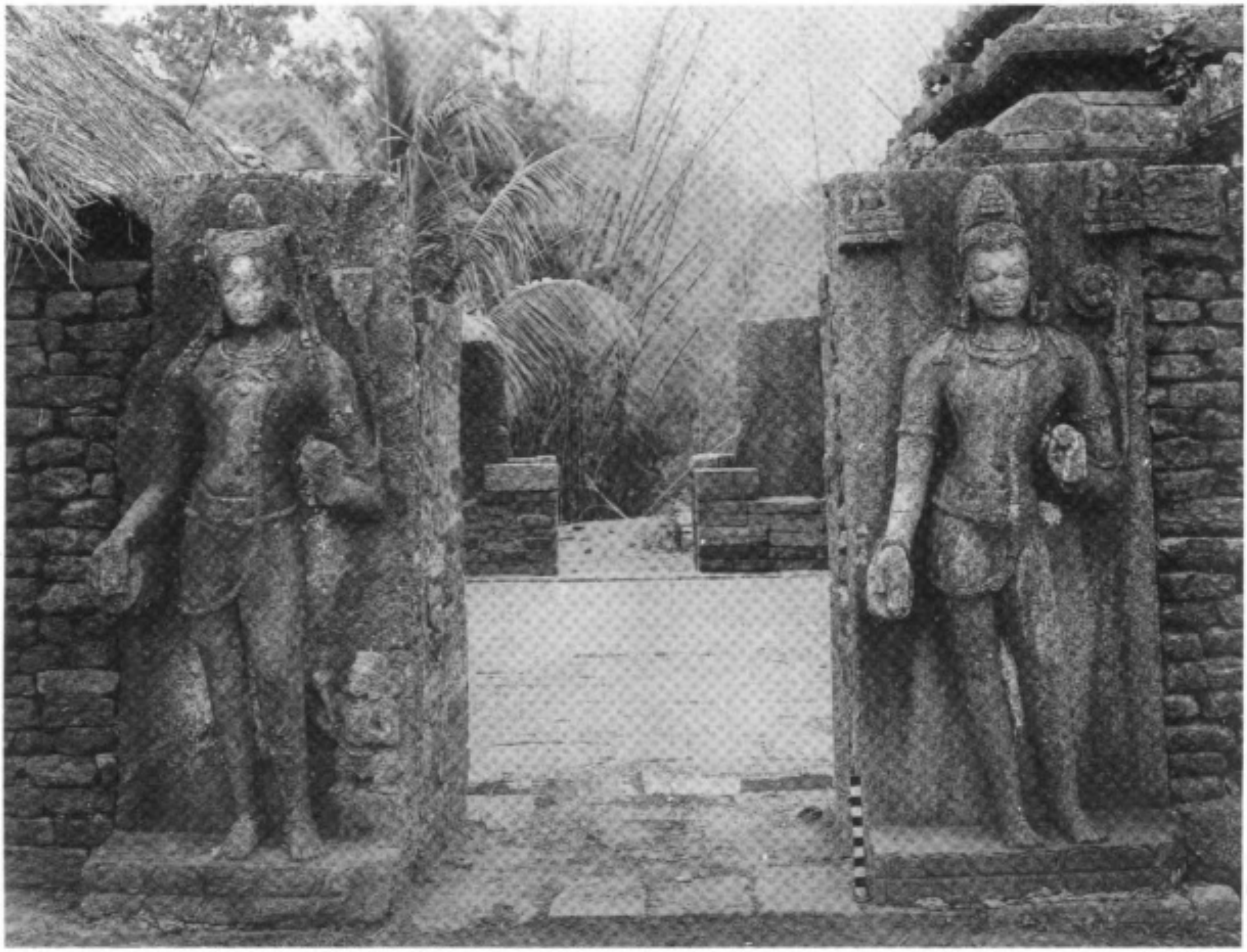
Pl. 26.9. Khondalite image of Vajrapāṇi, originally from Lalitagiri, now in the Indian Museum, Calcutta (copyright: ASI)



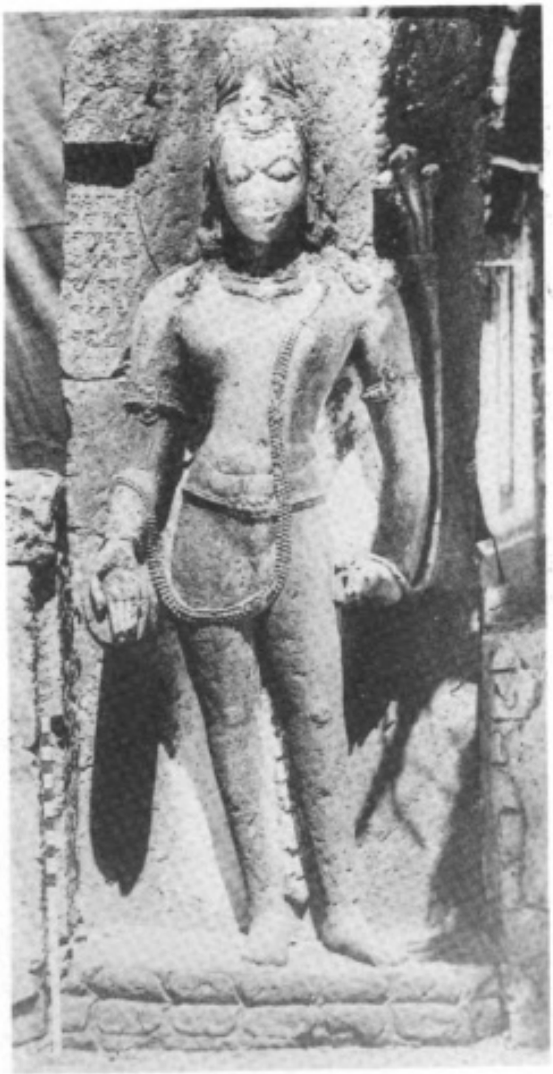
Pl. 26.10. Khondalite image of Sarvanivaraṇa-Vishkambhin, originally from Lalitagiri, now in the Indian Museum, Calcutta (copyright: ASI)



Pl. 26.11. Porch of the Vāsulī Ṭhākurāṇī temple, near the base of the Laṇḍā hill, Lalitagiri (copyright: ASI)

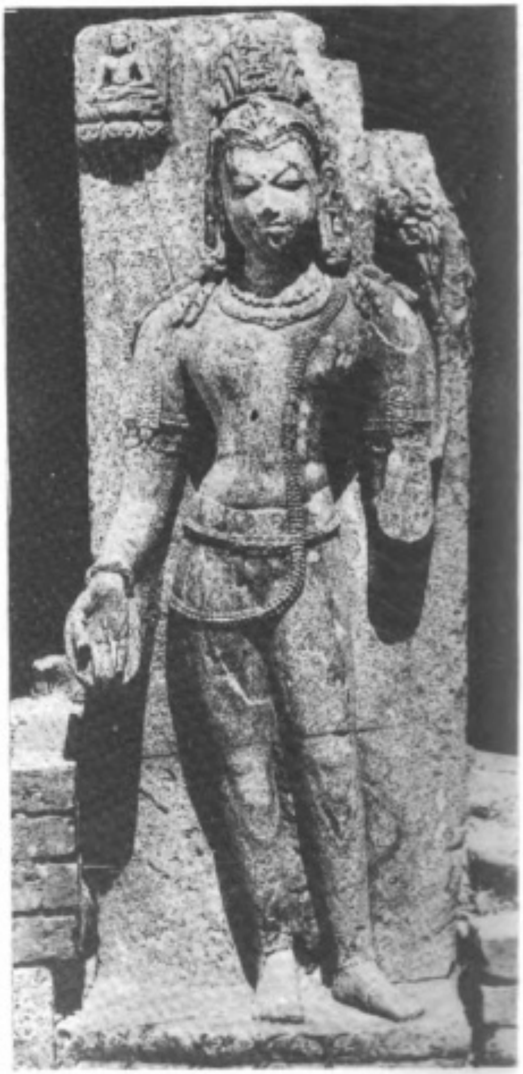


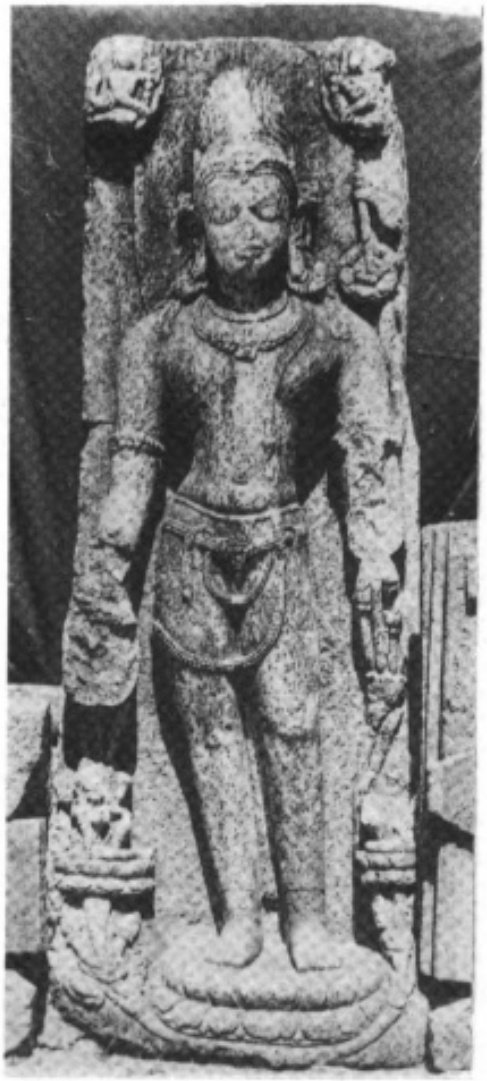
Pl. 26.12. Two khondalite images, one of Mañjuśrī and the other of Avalokiteśvara (abutting the Vāsulī Ṭhākurāṇī temple), now in Sculpture-shed, Lalitagiri (copyright: ASI)



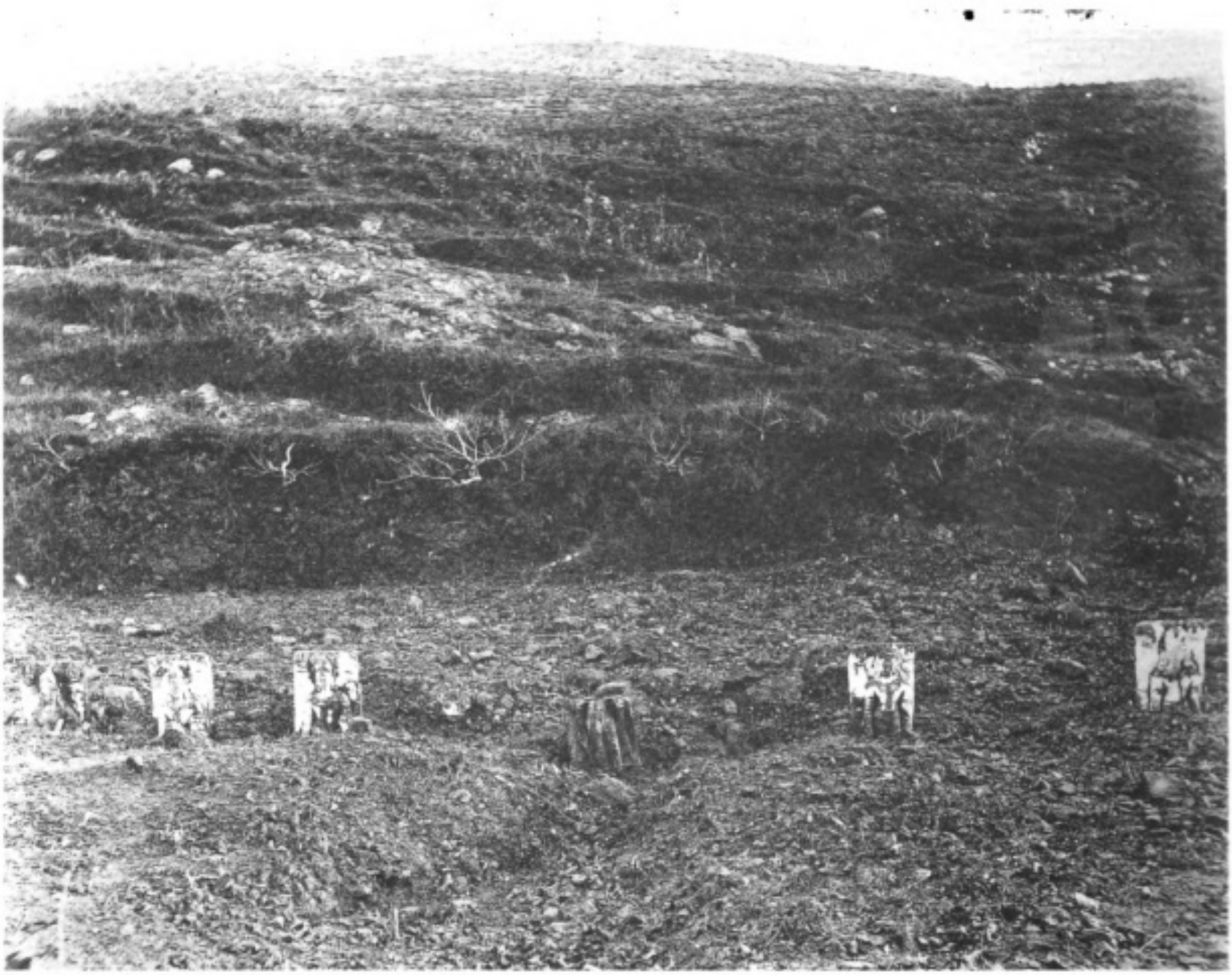
Pl. 26.13. Khondalite image of Kshitigarbha, from the immediate precincts of the Vāsulī Ṭhākurāṇī temple, now in Sculpture-shed, Lalitagiri (copyright: ASI)

Pl. 26.14. Khondalite image of Maitreya, from the immediate precincts of the Vāsulī Ṭhākurāṇī temple, now in Sculpture-shed, Lalitagiri (copyright: ASI)

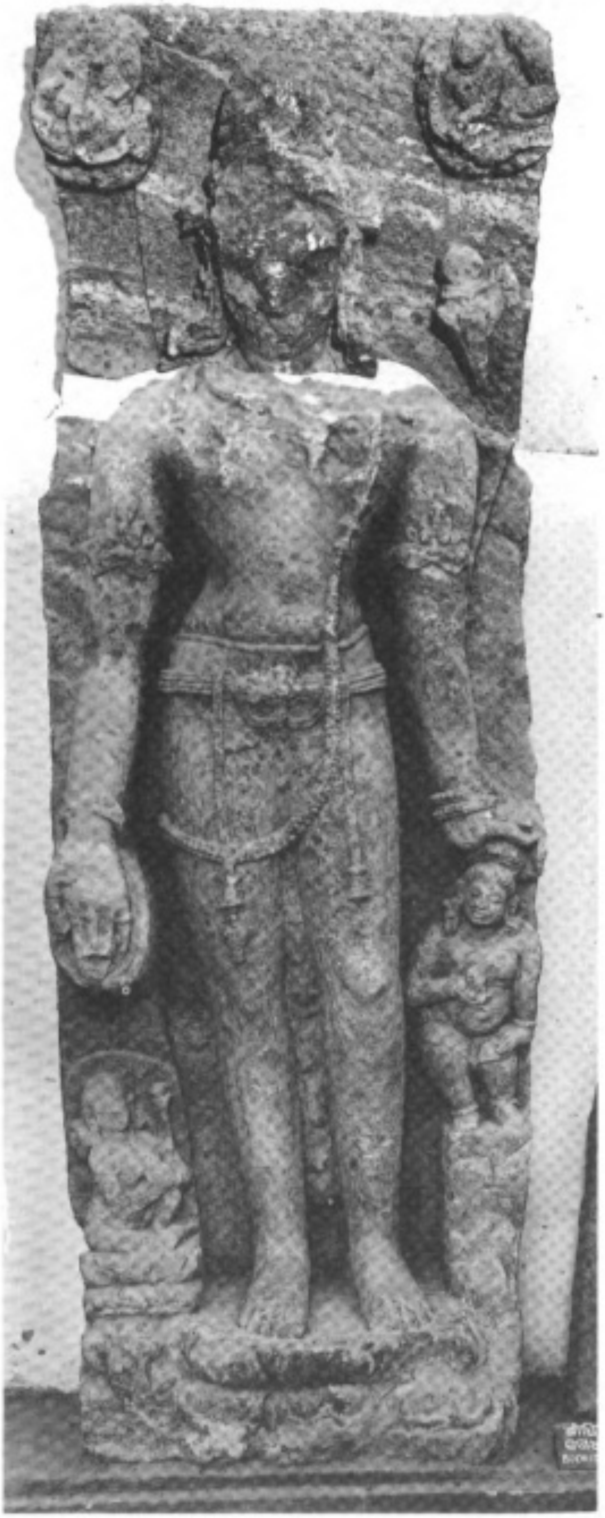




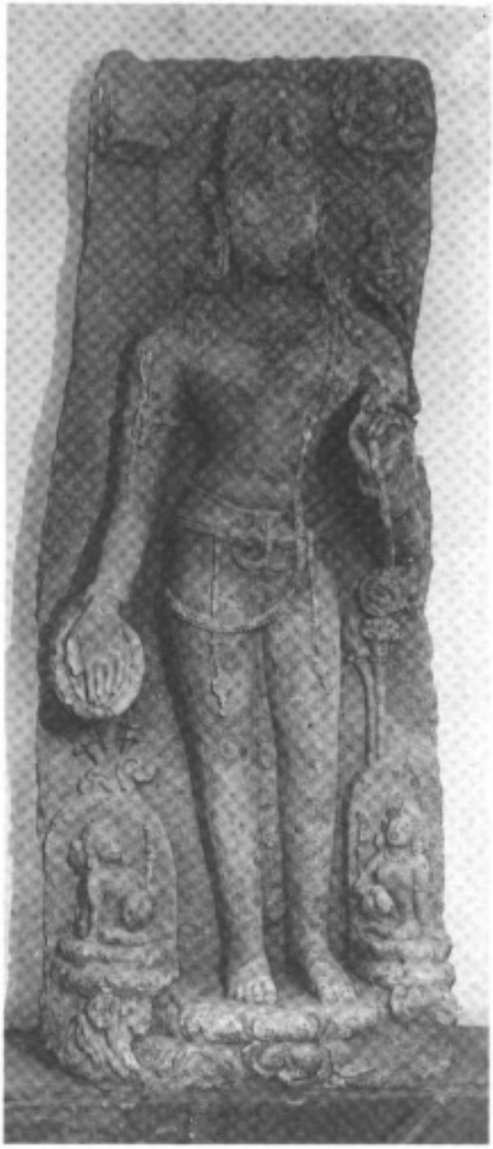
Pl. 26.15. Khondalite image of Sarvanivaraṇa-Vishkambhin, from the immediate precincts of the Vāsulī Ṭhākurāṇī temple, now in Sculpture-shed, Lalitagiri (copyright: ASI)



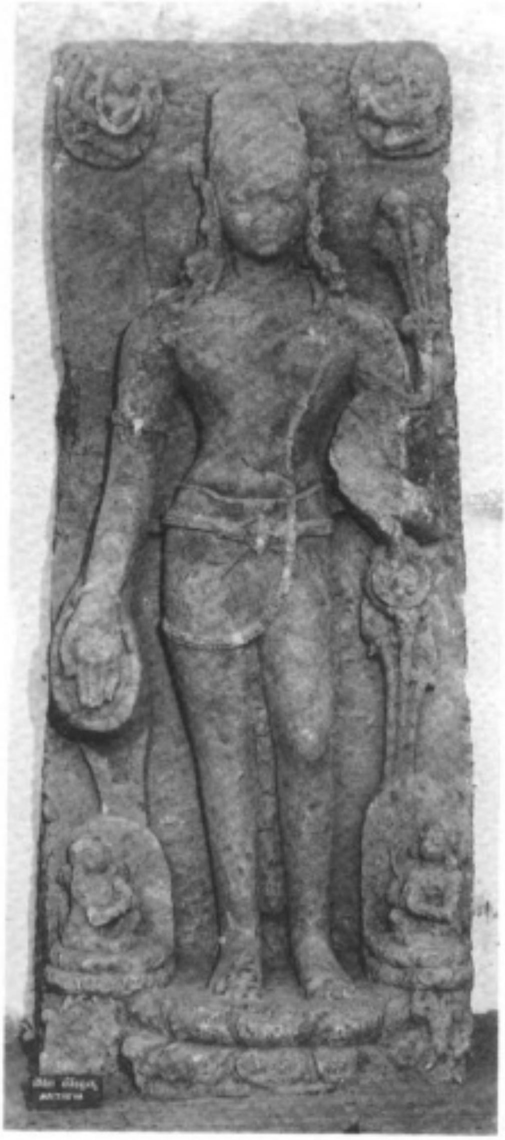
Pl. 26.16. Row of partly-buried khondalite images (before shifting to Sculpture-shed) at Hātikhāl, Lalitagiri (copyright: ASI)



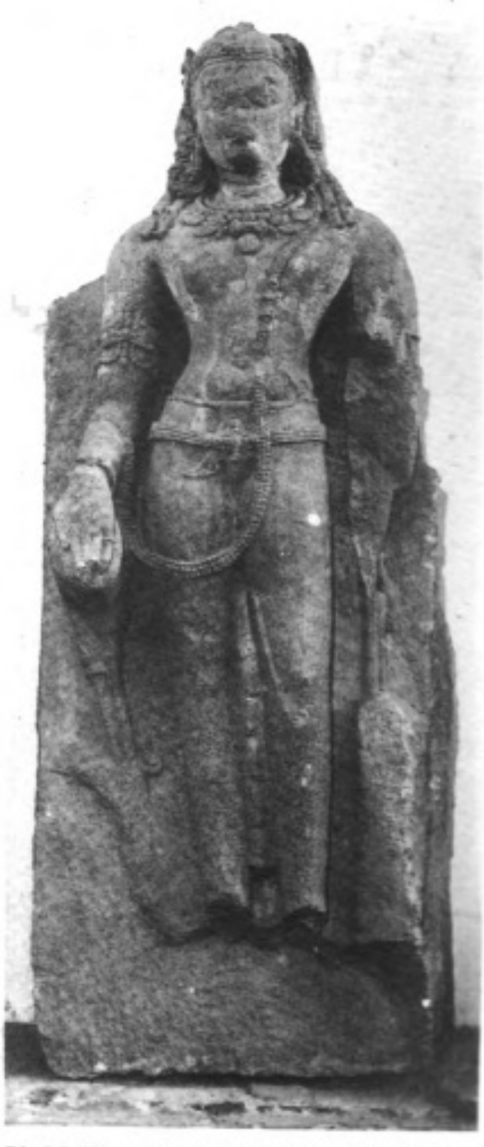
Pl. 26.17. Khondalite image of Ākāśagarbha from Hātikhāl, now in Sculpture-shed, Lalitagiri (copyright: ASI)



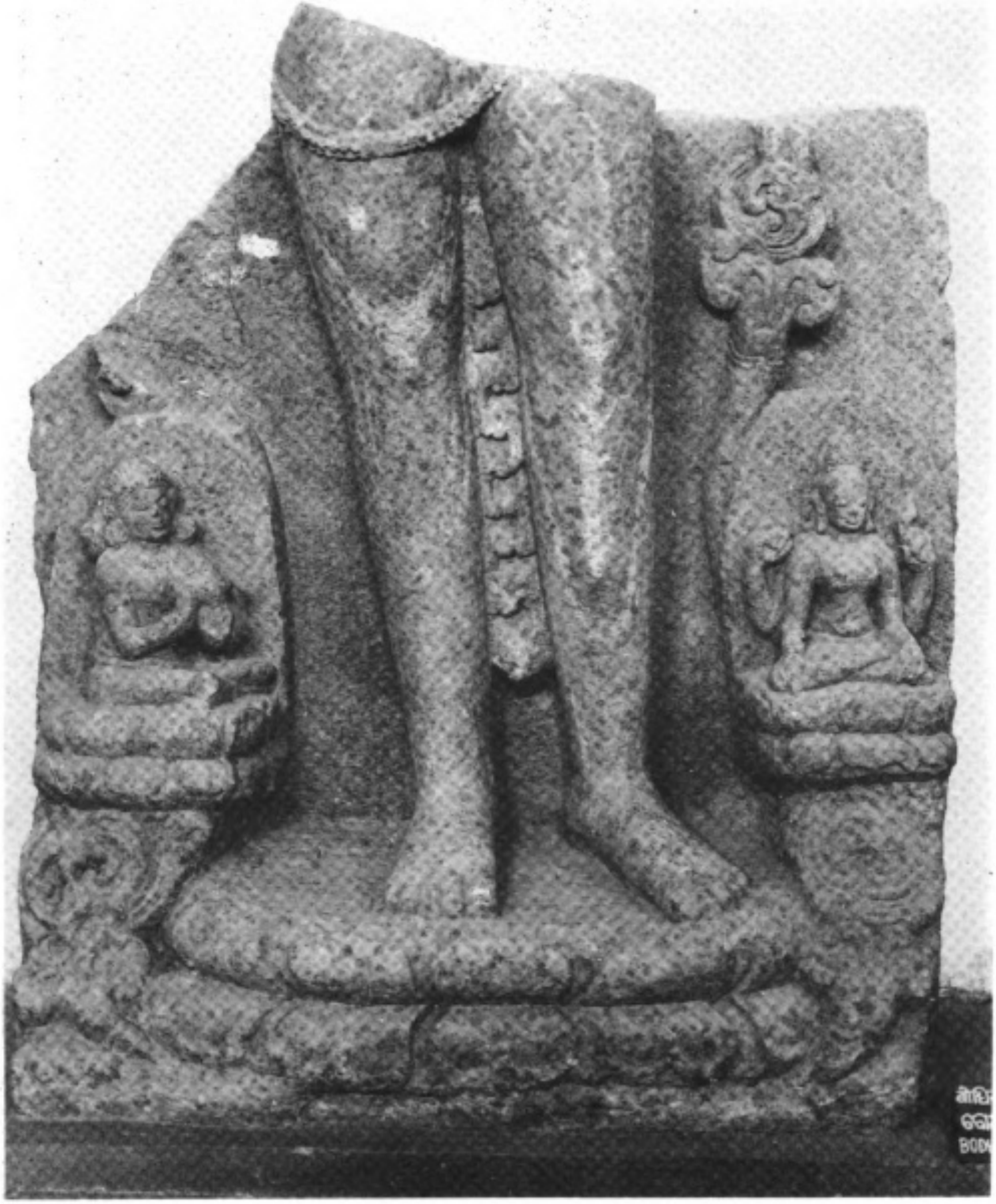
Pl. 26.18. Khondalite image of Samantabhadra from Hātikhāl, now in Sculpture-shed, Lalitagiri (copyright: ASI)



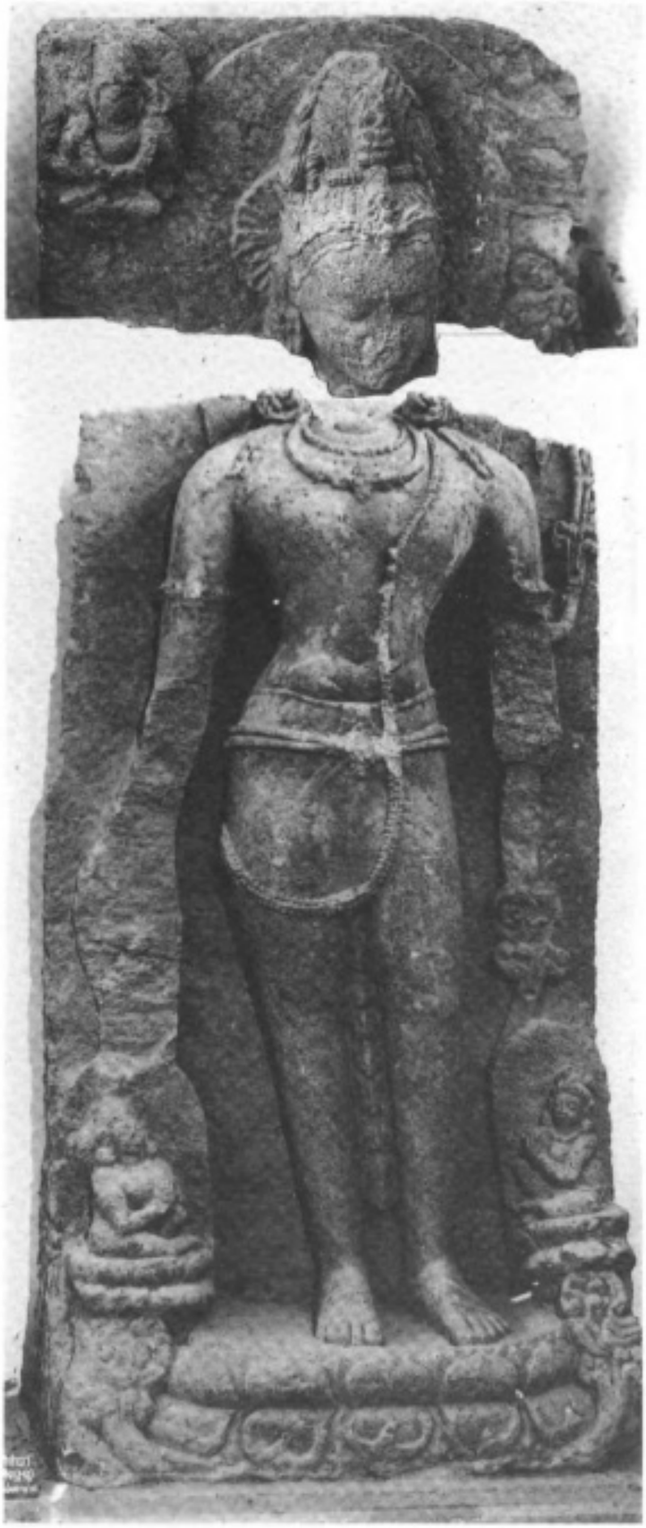
Pl. 26.19. Khondalite image of Kshitigarbha from Hātikhāl, now in Sculpture-shed, Lalitagiri (copyright: ASI)



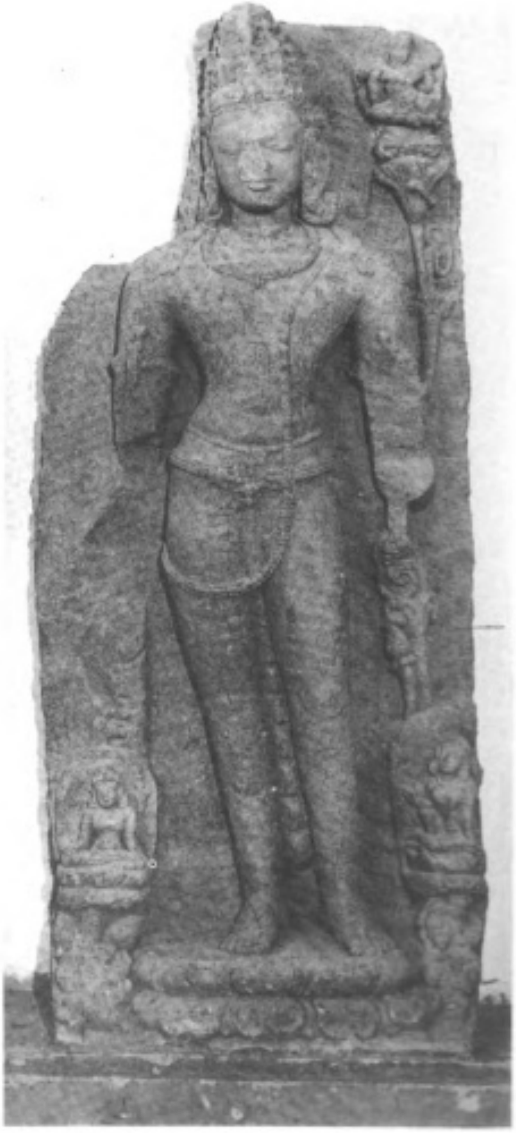
Pl. 26.20. Khondalite image of Mañjuśrī, from Hātikhāl, now in Sculpture -shed, Lalitagiri (copyright: ASI)



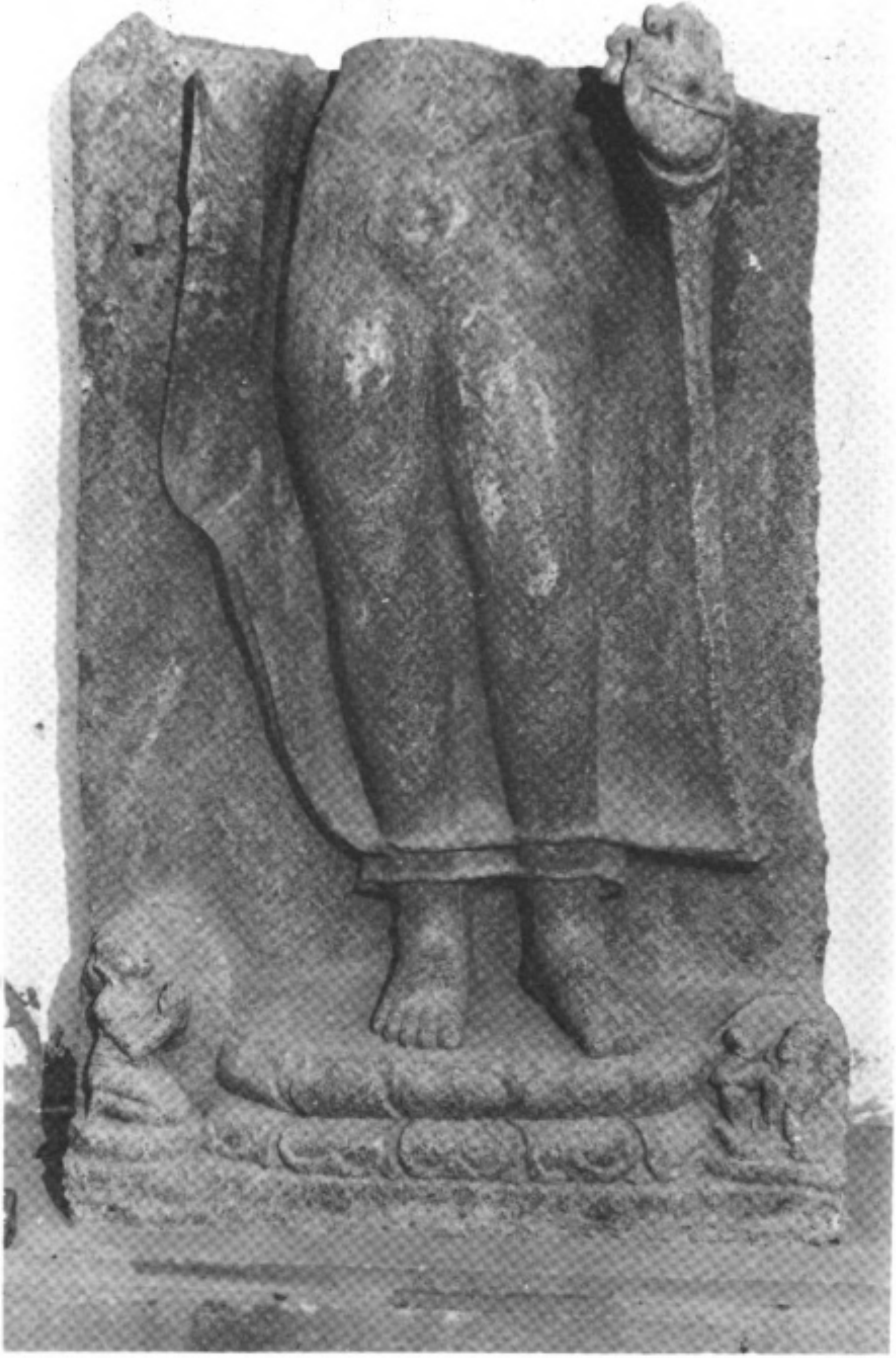
Pl. 26.21. Lower part of a khondalite image of Avalokiteśvara from Hātikhāl, now in Sculpture-shed, Lalitagiri (copyright: ASI)



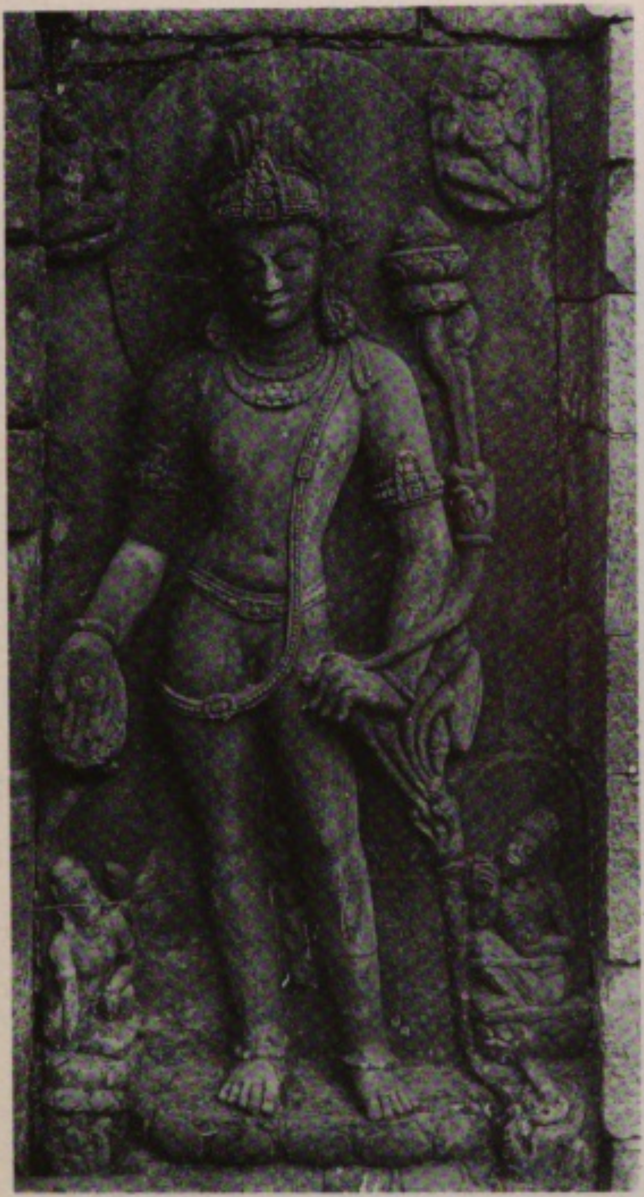
Pl. 26.22. Khondalite image of Maitreya from Hātikhāl, now in Sculpture-shed, Lalitagiri (copyright: ASI).



Pl. 26.23. Khondalite image of Vajrapāṇi from Hātikhāl, now in Sculpture-shed, Lalitagiri (copyright:ASI)

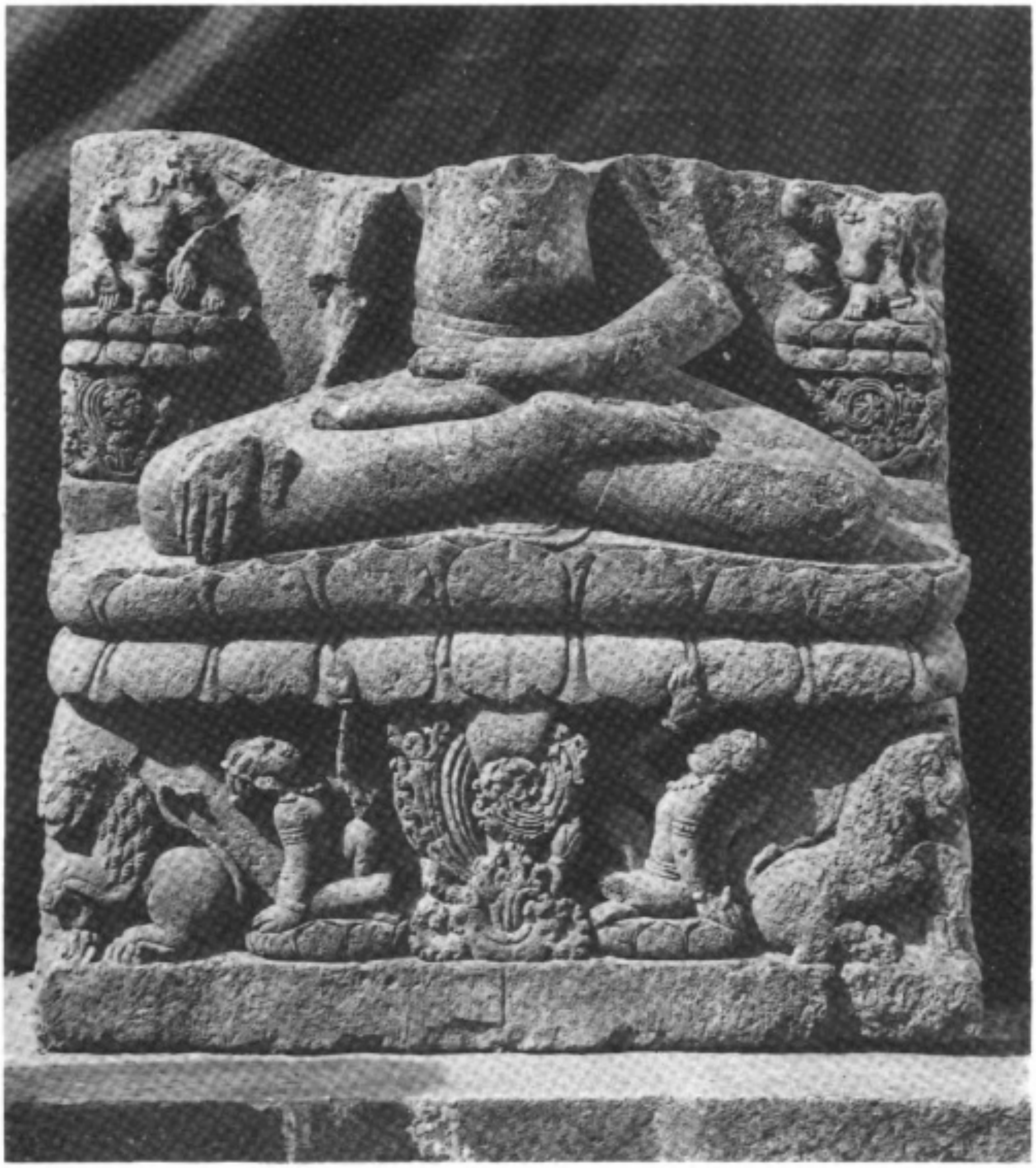


Pl. 26.24. Lower part of a khondalite image of Buddha, from Hātikhāl, now in Sculpture-shed, Lalitagiri (copyright: ASI)

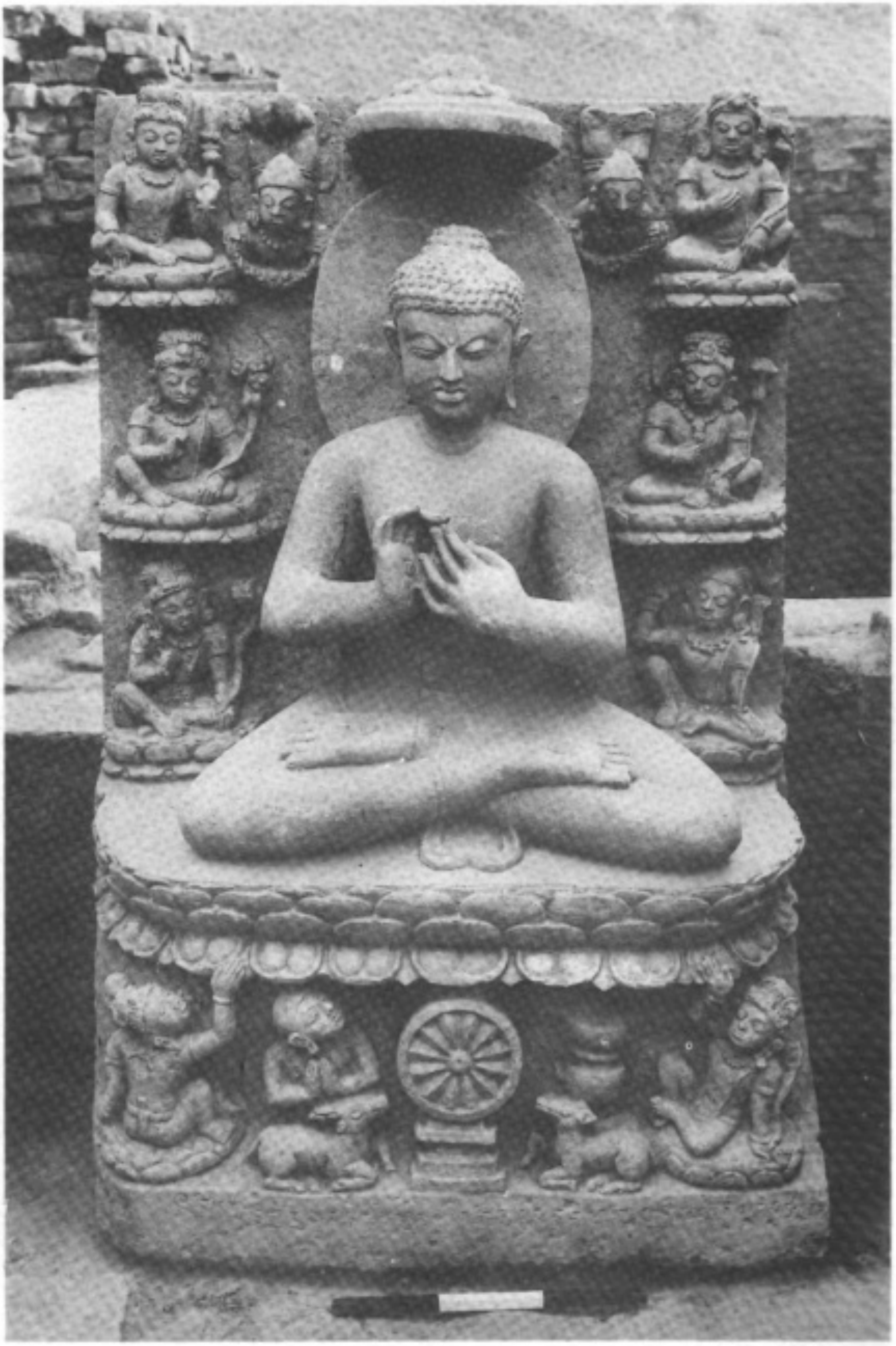


Pl. 26.25. Khondalite image of Ākāśagarbha (?), Sculpture-shed, Lalitagiri (copyright: ASI)

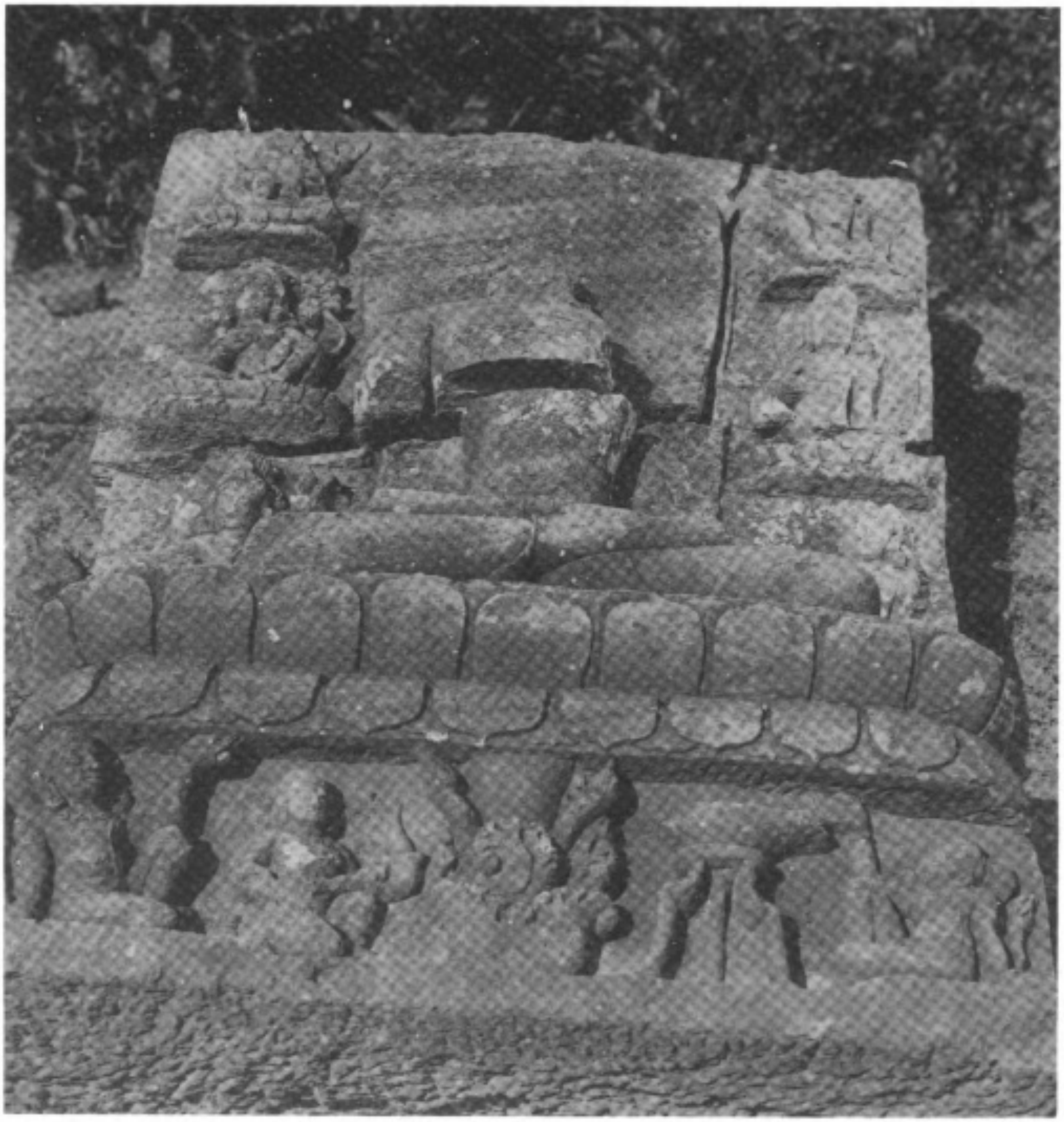
Pl. 26.26. Khondalite image of Mañjuśrī, Sculpture-shed, Lalitagiri (copyright: ASI)



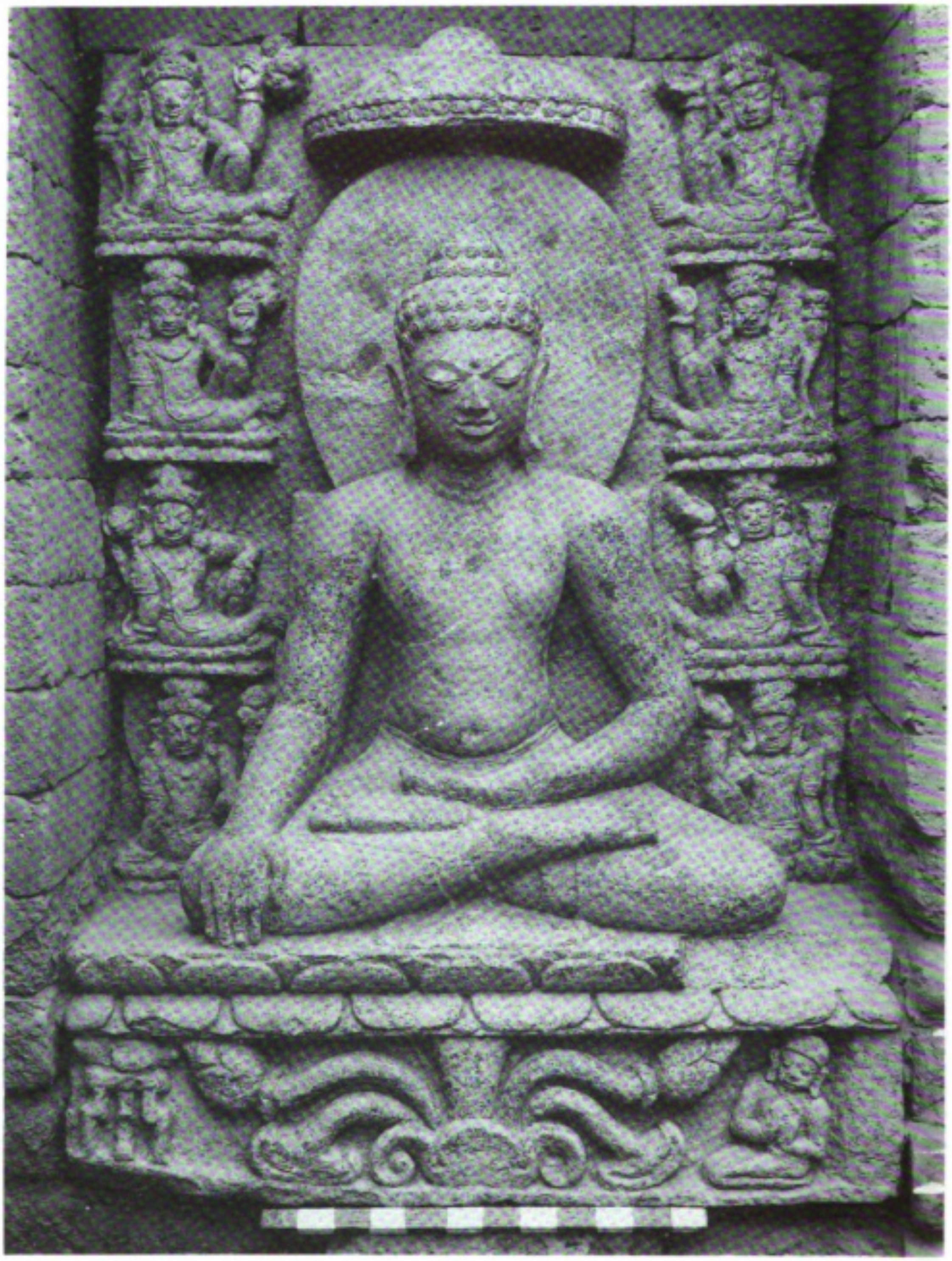
Pl. 26.27. Khondalite image of Buddha with Bodhisattvas, Sculpture-shed, Lalitagiri (copyright: ASI)



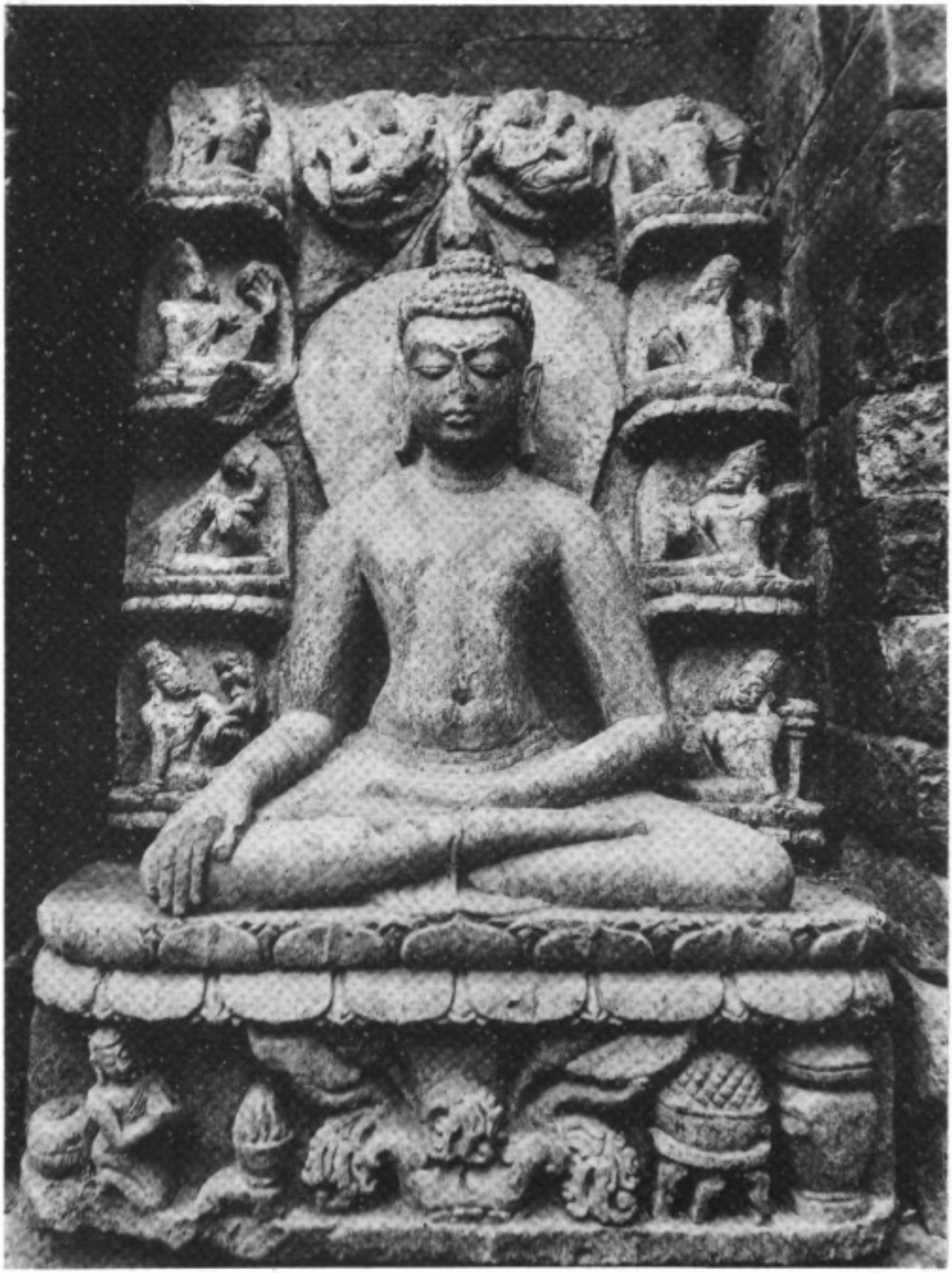
Pl. 26.28. Khondalite image of Buddha with eight Bodhisattvas, unearthed during the excavation of a monastery, Udayagiri (copyright: ASI)



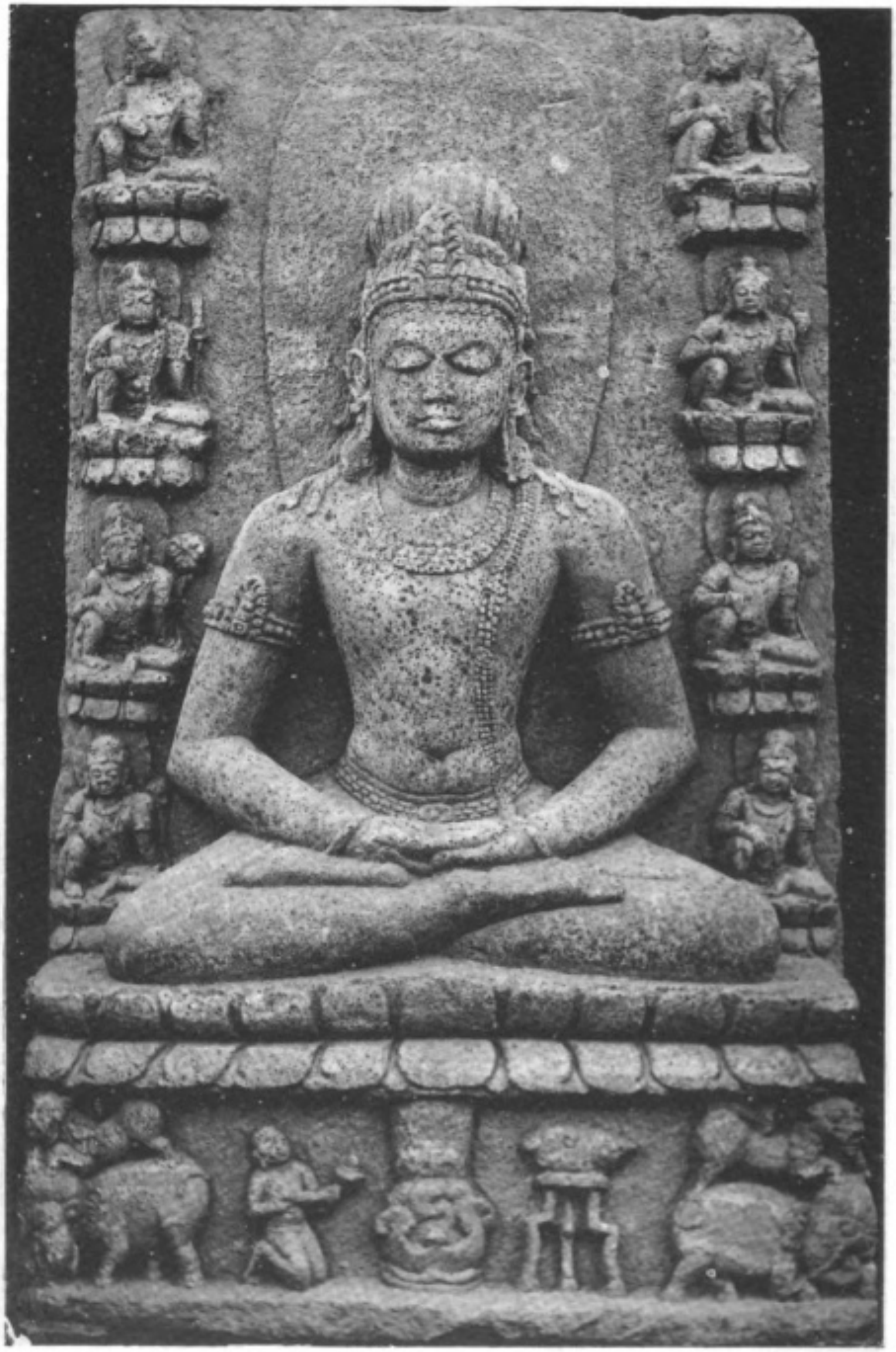
Pl. 26.29. Damaged khondalite sculpture of Buddha with eight Bodhisattvas, found on surface, Udayagiri (copyright: ASI)



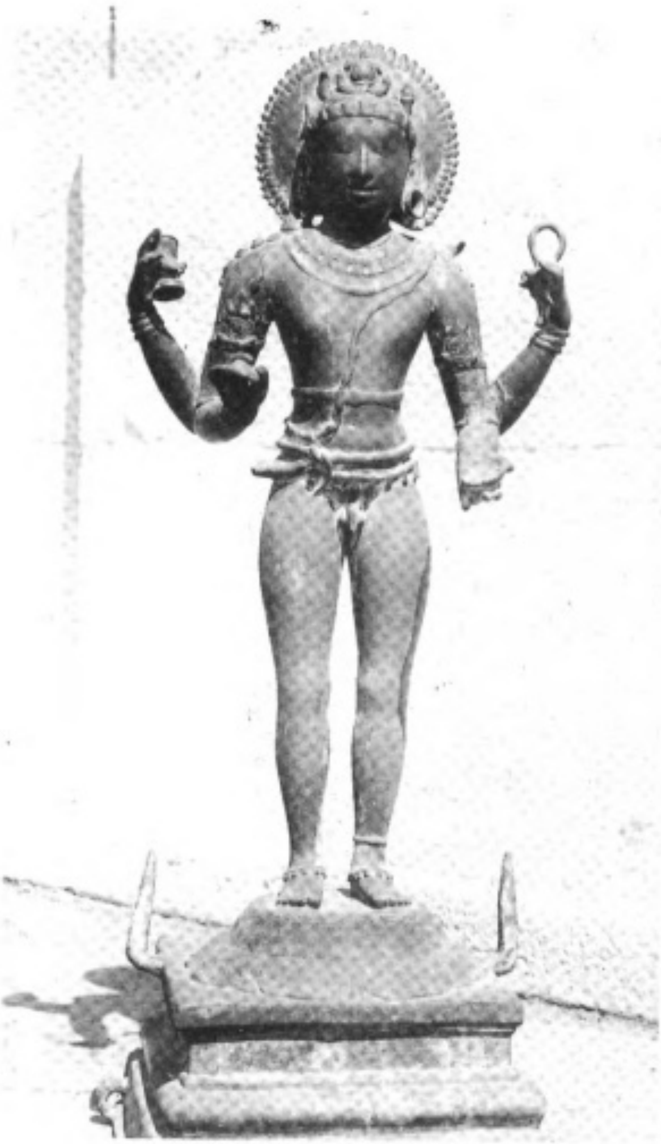
Pl. 26.30. Khondalite image of Akshobhya or Śākyamuni Buddha in the company of eight Bodhisattvas within a niche of the western wall of the later antechamber in front of the shrine of Monastery 1, Ratnagiri (copyright: ASI)



Pl. 26.31. Khondalite image of Buddha with eight Bodhisattvas within a niche of the western wall of the later antechamber in front of the shrine of Monastery 1, Ratnagiri (copyright: ASI)

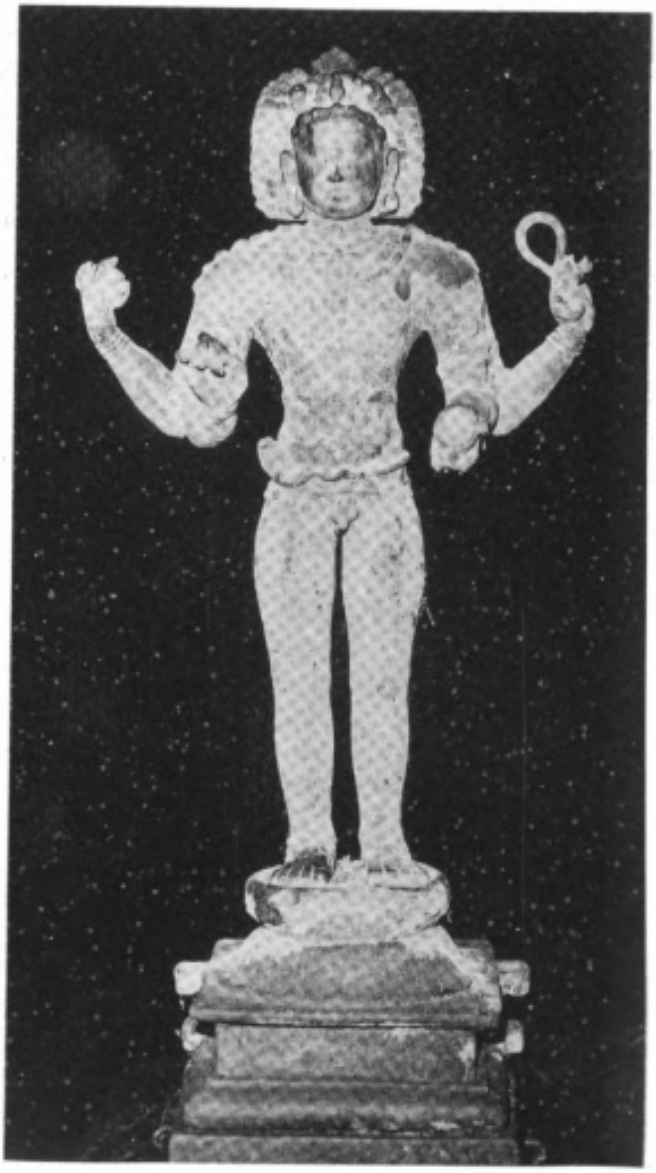


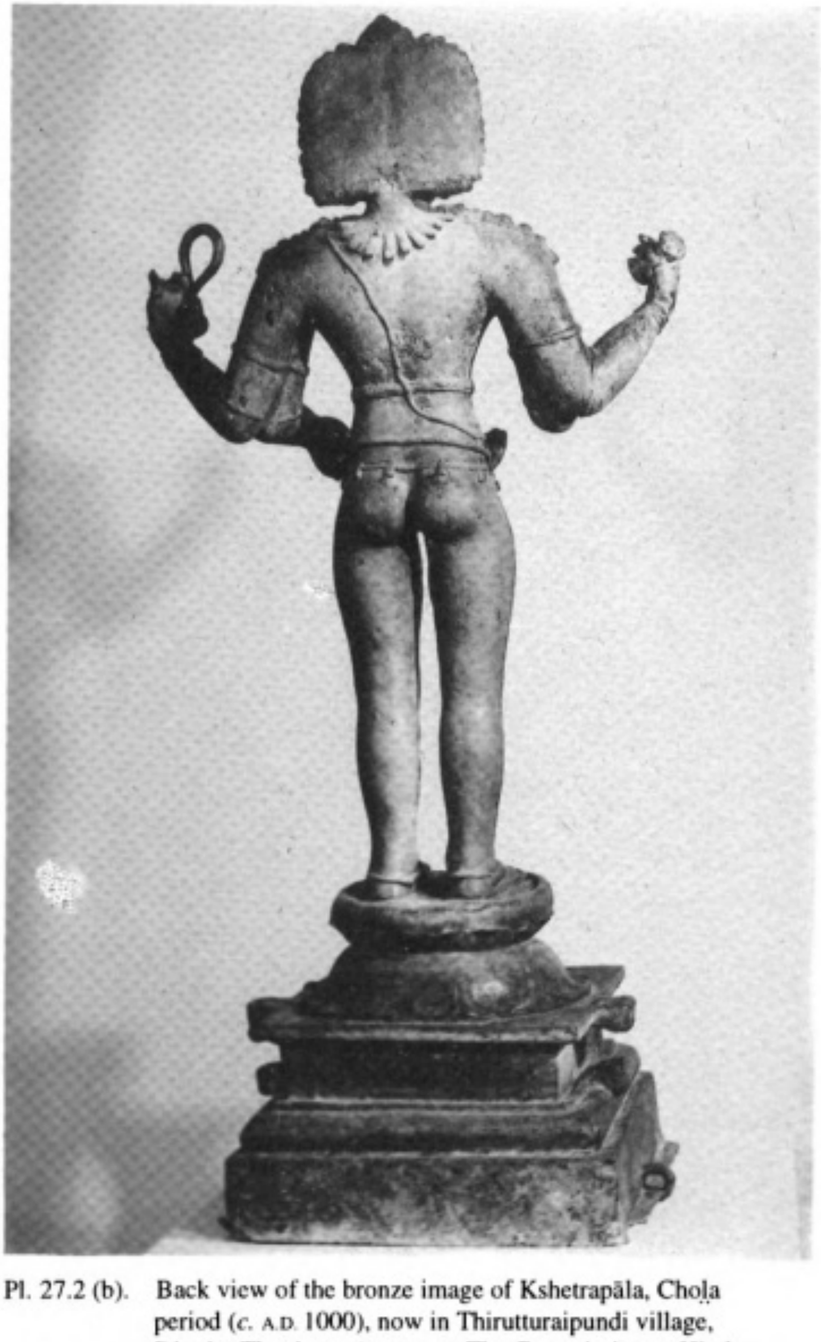
Pl. 26.32. Khondalite image of a Tathāgata (?) with eight Bodhisattvas, found on the later floor of the ambulatory (or court) of Temple 5, Ratnagiri (copyright: ASI)



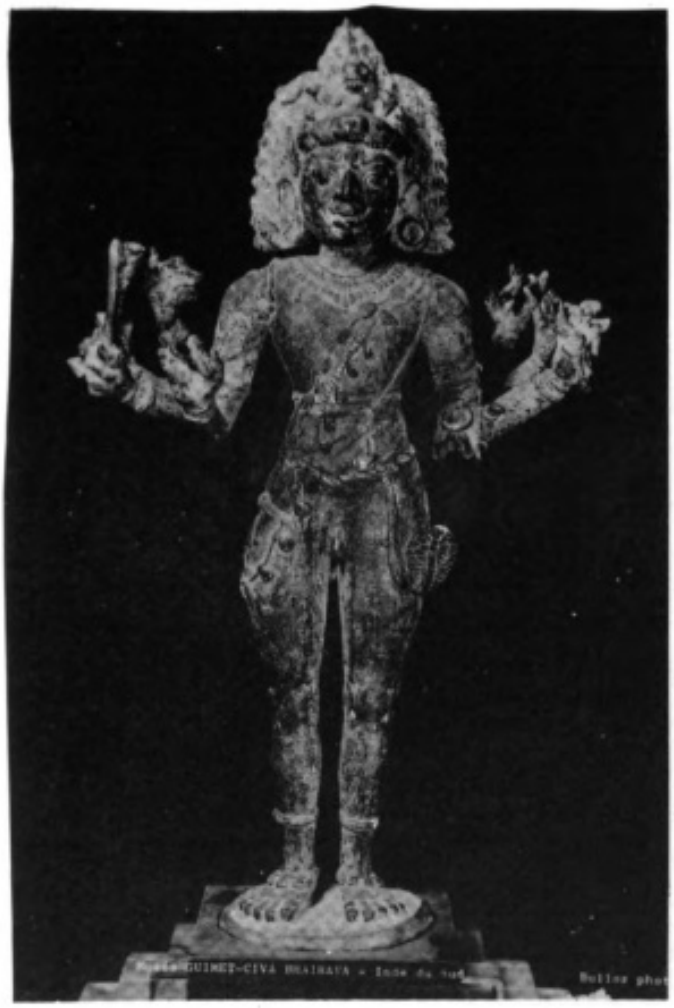
Pl. 27.1. Bronze image of Kshetrapālá, early Choḷa period (*c.* A.D. 925) in the Piravāmaruntīśvara temple, Taluk Thirutturaipundi, District Thanjavur (courtesy: The Commissioner, Hindu Religious and Charitable Department, Tamilnadu)

Pl. 27.2 (a). Front view of the bronze image of Kshetrapāla, Choḷa period (*c.* A.D. 1000), now in Thirutturaipundi village, District Thanjavur (courtesy: The Commissioner, Hindu Religious and Charitable Department, Tamilnadu)

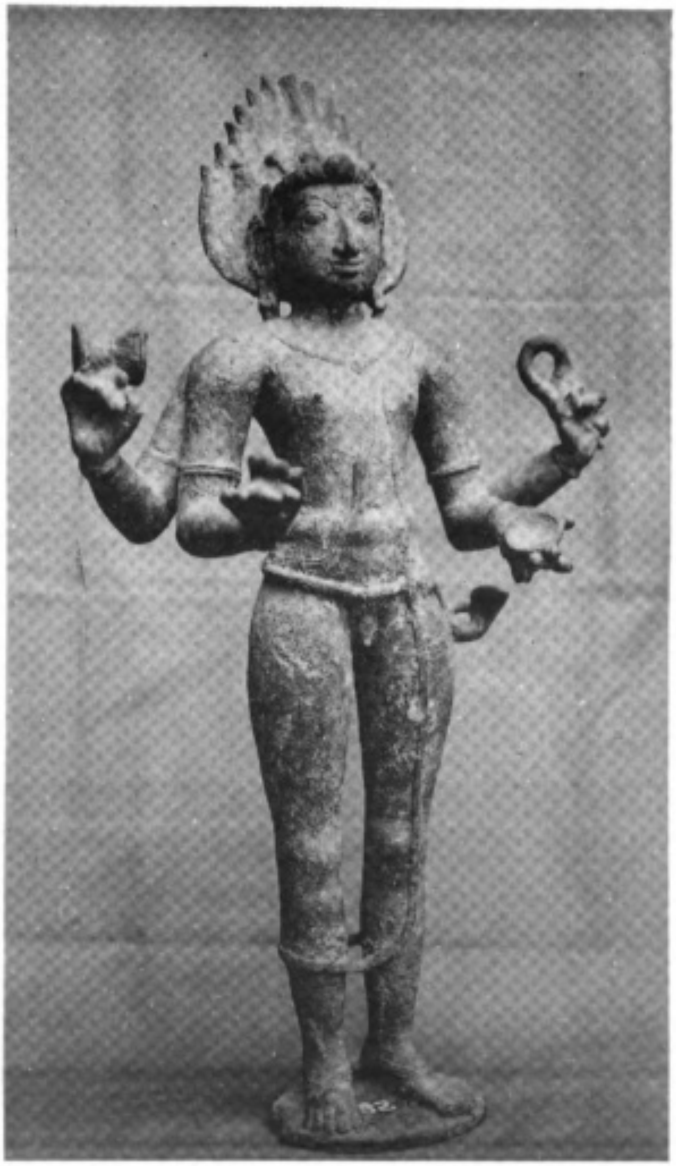




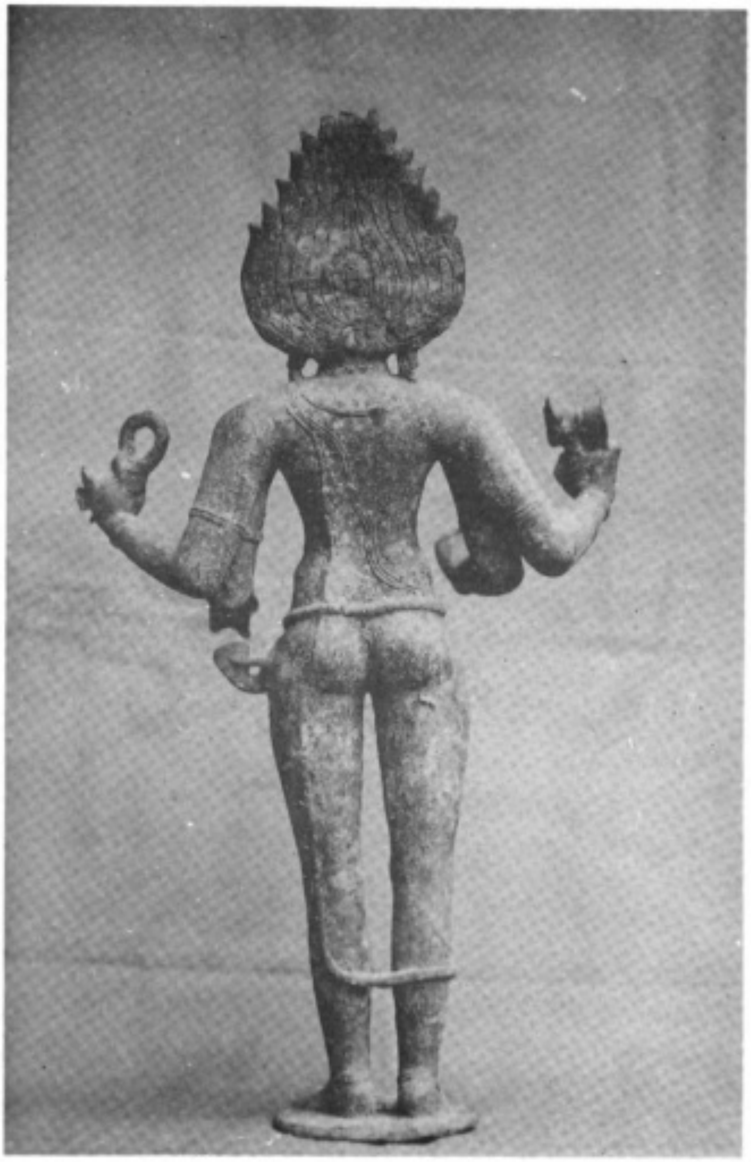
Pl. 27.2 (b). Back view of the bronze image of Kshetrapāla, Choḷa period (*c.* A.D. 1000), now in Thirutturaipundi village, District Thanjavur (courtesy: The Commissioner, Hindu Religious and Charitable Department, Tamilnadu)



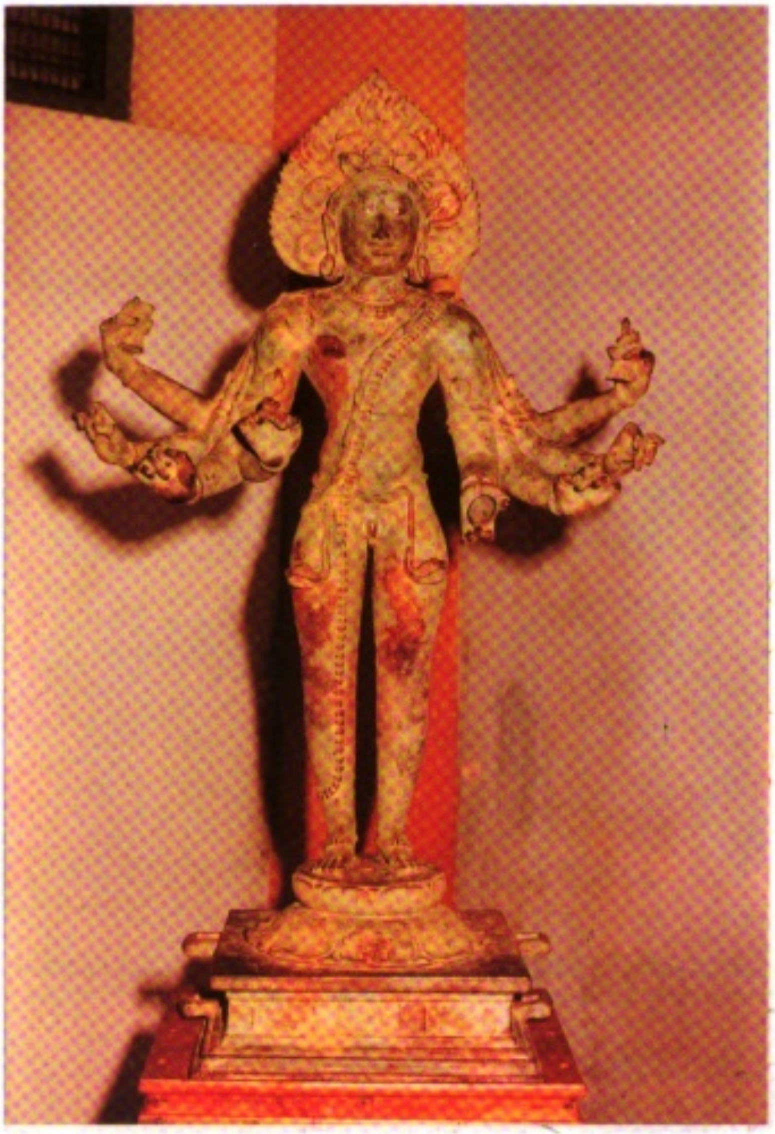
Pl. 27.3 Bronze image of Kshetrapāla, Choḷa period (*c.* A.D. 1000), now in Musée Guimet, Paris, France (courtesy: Musée Guimet, Paris)



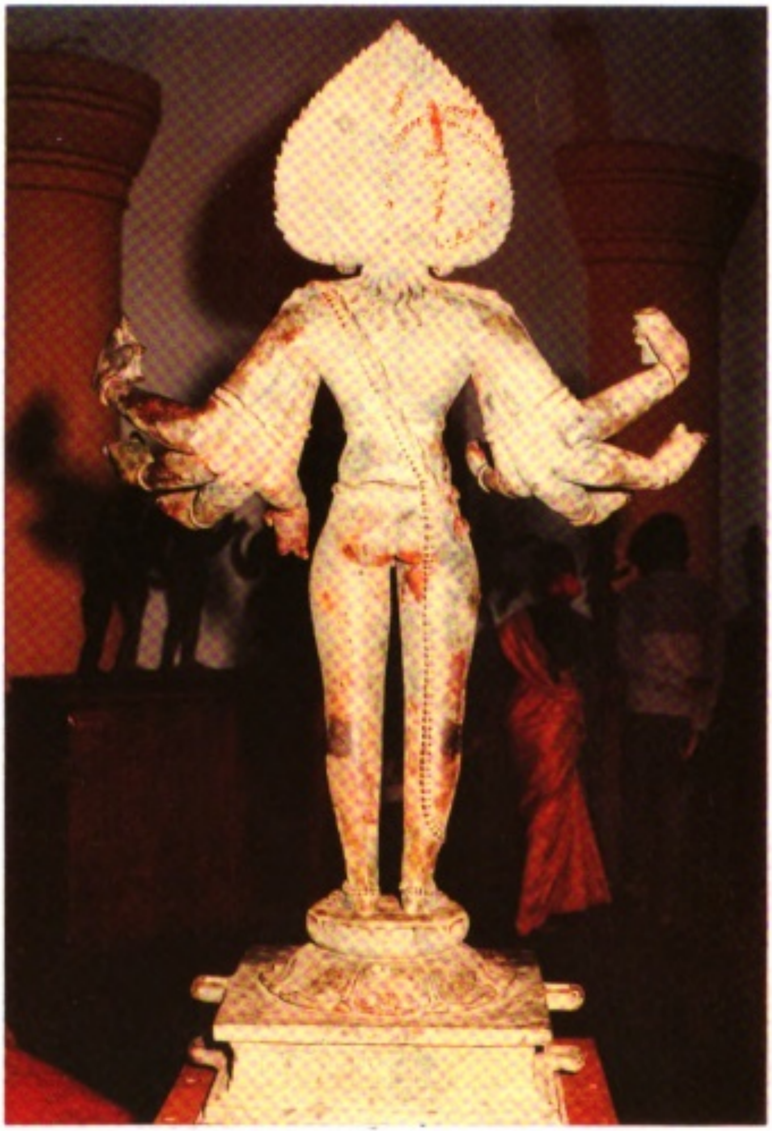
Pl. 27.4(a). Front view of the bronze image of Kshetrapāla, Choḷa period (*c.* A.D. 1000), in the Naṭarāja temple, Chidambaram (courtesy: The Podu Dikshitar, Chidambaram)



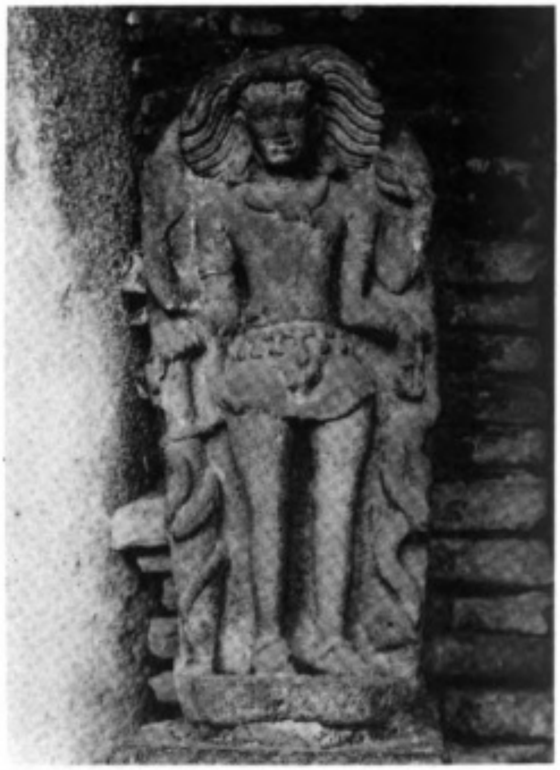
Pl. 27.4(b). Back view of the bronze image as shown on Pl.27.4(a)



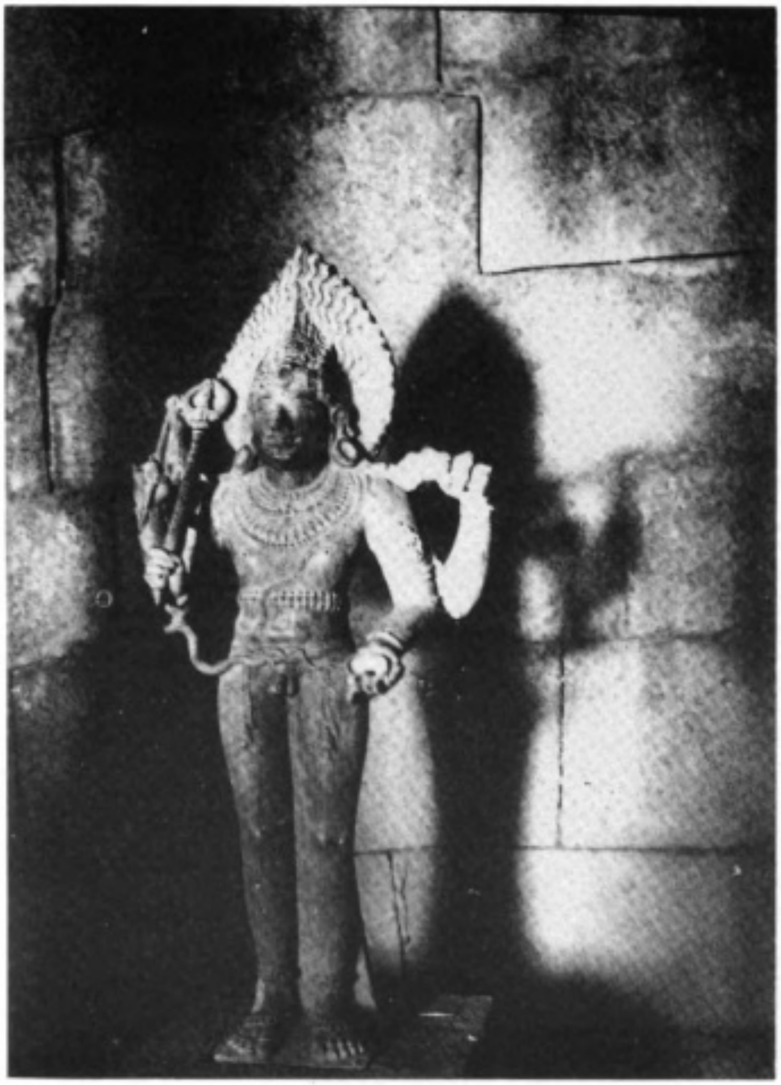
Pl. 27.5(a). Front view of the bronze image of Kshetrapāla, Choḷa period (*c*. A.D. 1010), Thiruvenkadu, District Thanjavur, now in the Tanjore Art Gallery (courtesy: Tanjore Art Gallery)



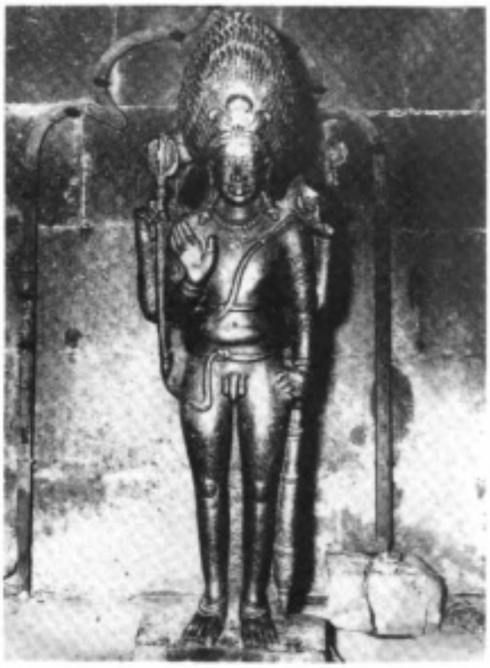
Pl. 27.5(b). Back view of the bronze image of Kshetrapāla, Choḷa period (*c.* A.D. 1010), Thiruvenkadu, District Thanjavur, now in the Tanjore Art Gallery (courtesy: Tanjore Art Gallery)



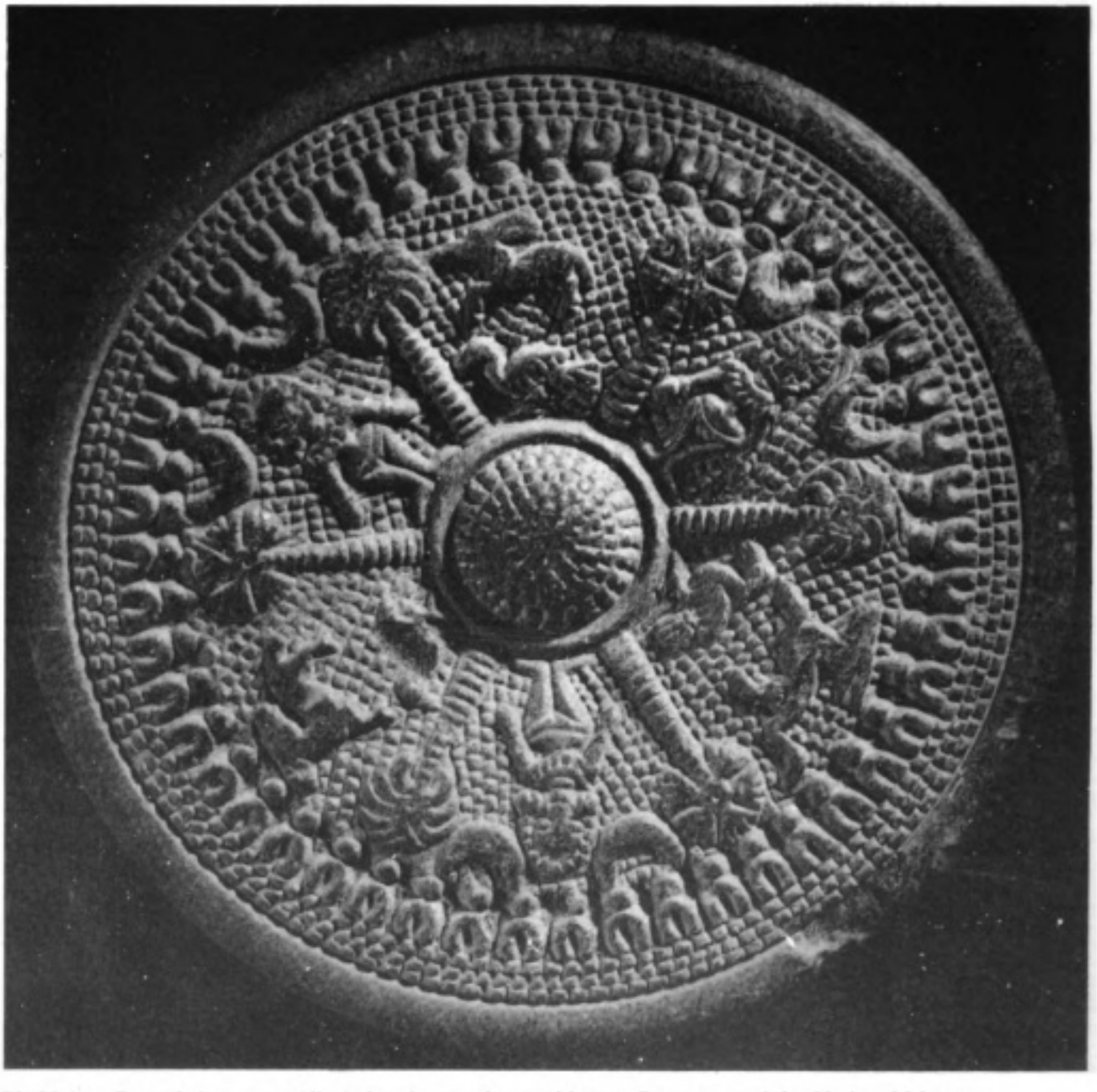
Pl. 27.7. Stone image of Kshetrapāla (ninth or tenth century A.D.) in the Śiva temple at Jambai, District South Arcot (courtesy: R. Nagaswamy)



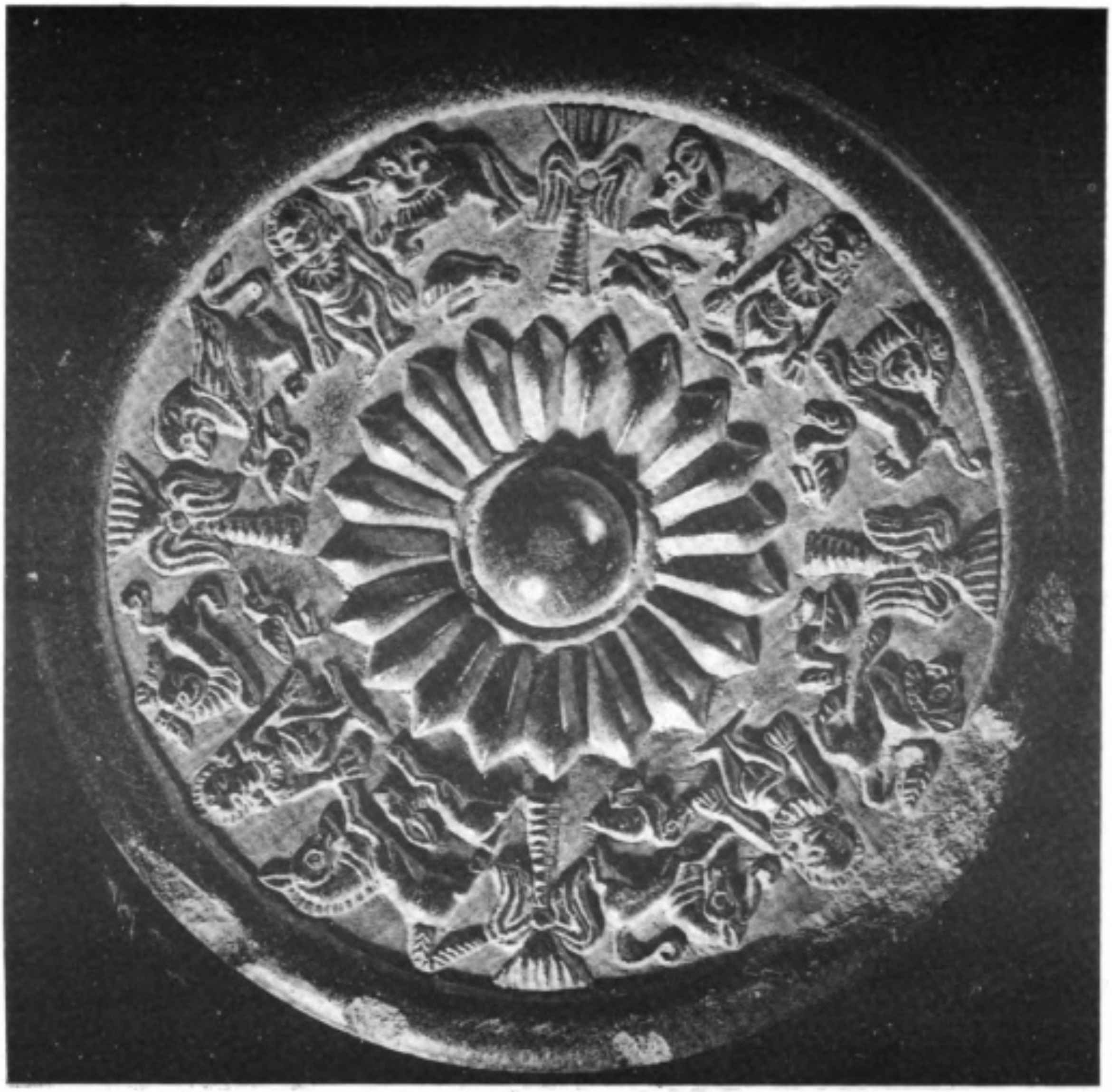
Pl. 27.6. Stone image of Kshetrapāla, Choḷa period (*c.* A.D. 1005), in the Śiva temple (built by Rājarāja Choḷa I), Sivapuram, District Chinglepet (courtesy: Directorate of Archaeology, Tamilnadu)



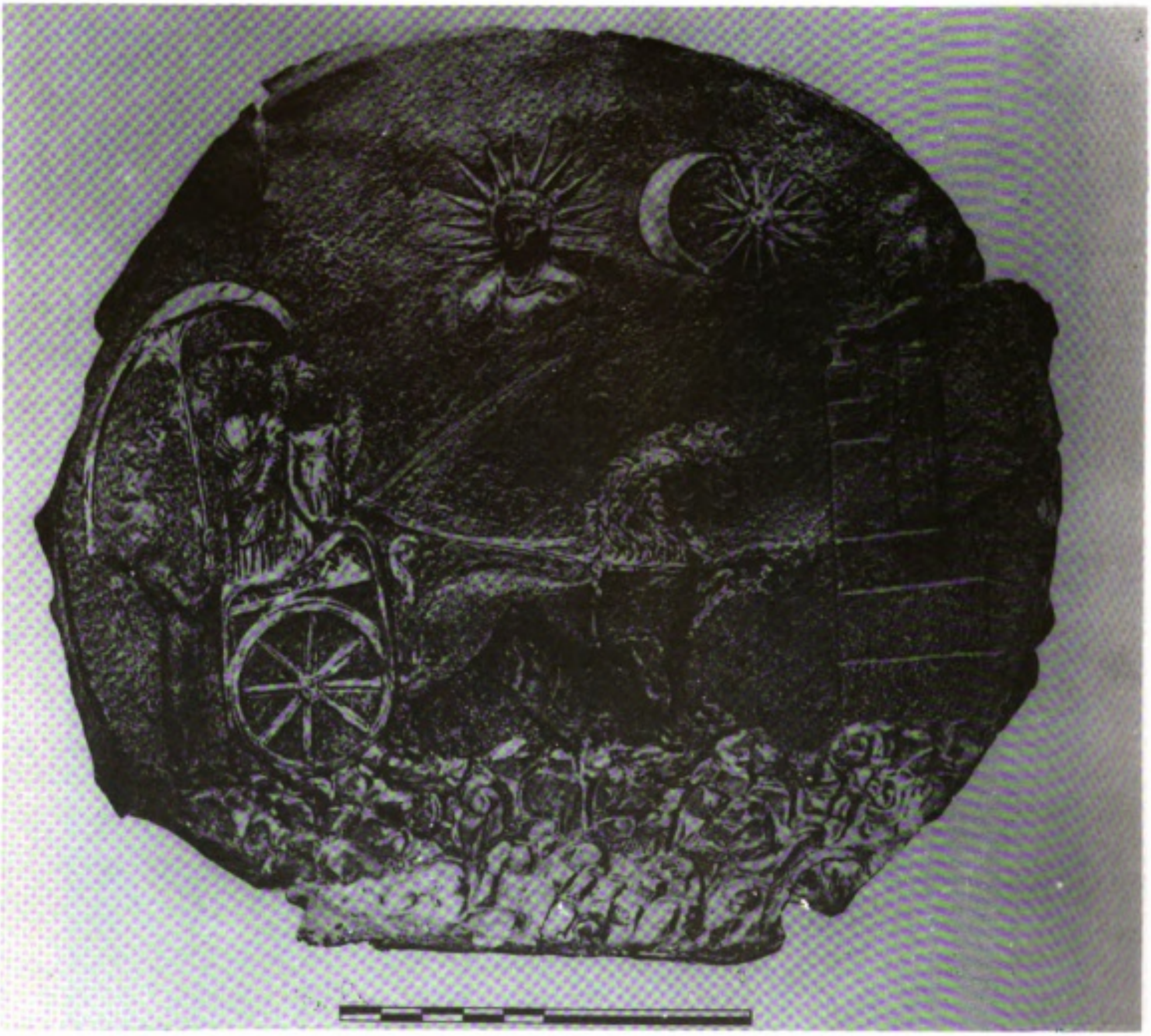
Pl. 27.8. Image of Kshetrapāla, Choḷa period (*c.* A.D. 1020), in the Ādipurīśvara temple, Thiruvorriyur, near Madras (courtesy: Directorate of Archaeology, Tamilnadu)



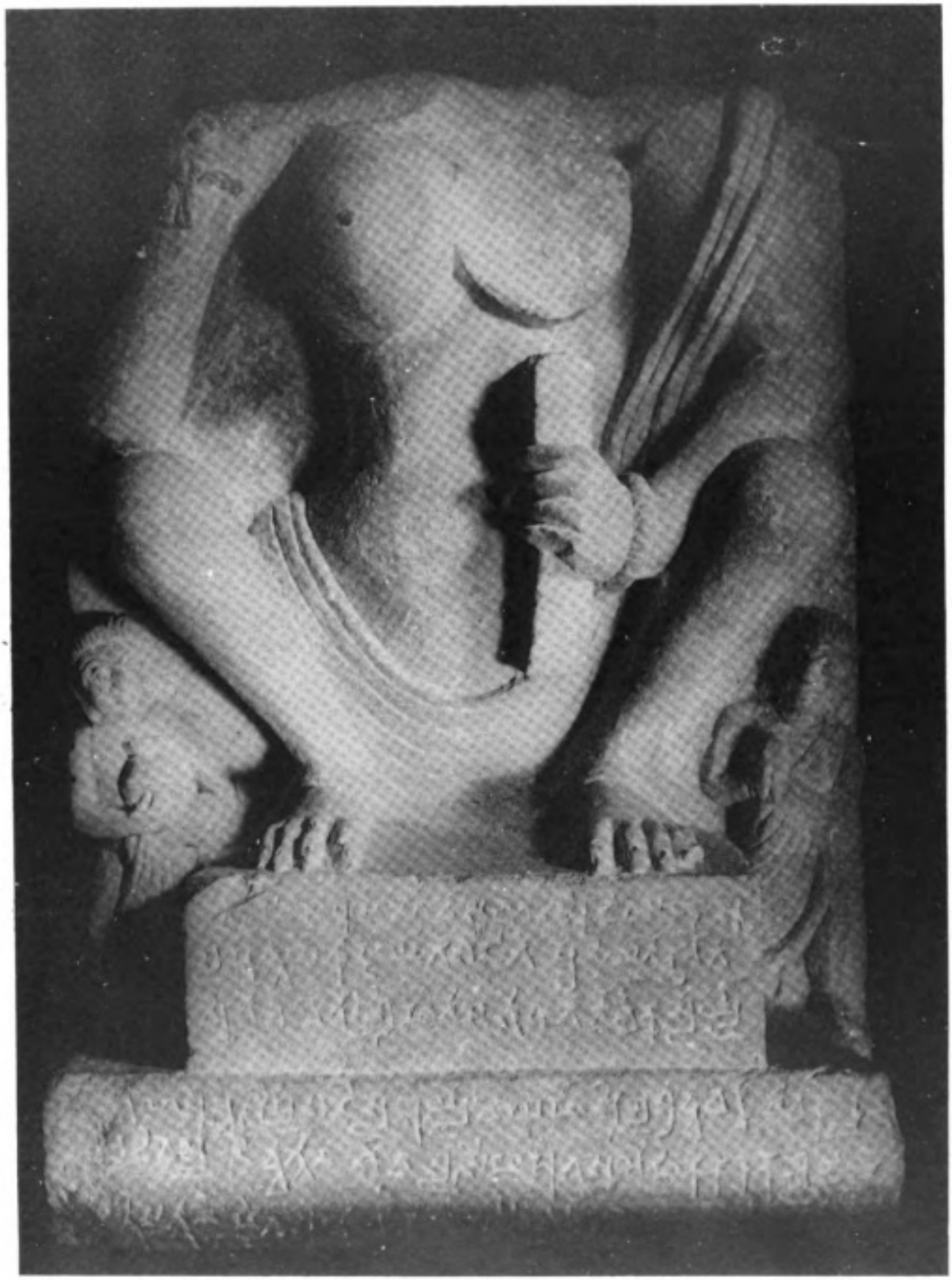
Pl. 28.1. Carved ring-stone (disc) showing mother-goddesses, Patna (copyright: National Museum, New Delhi)



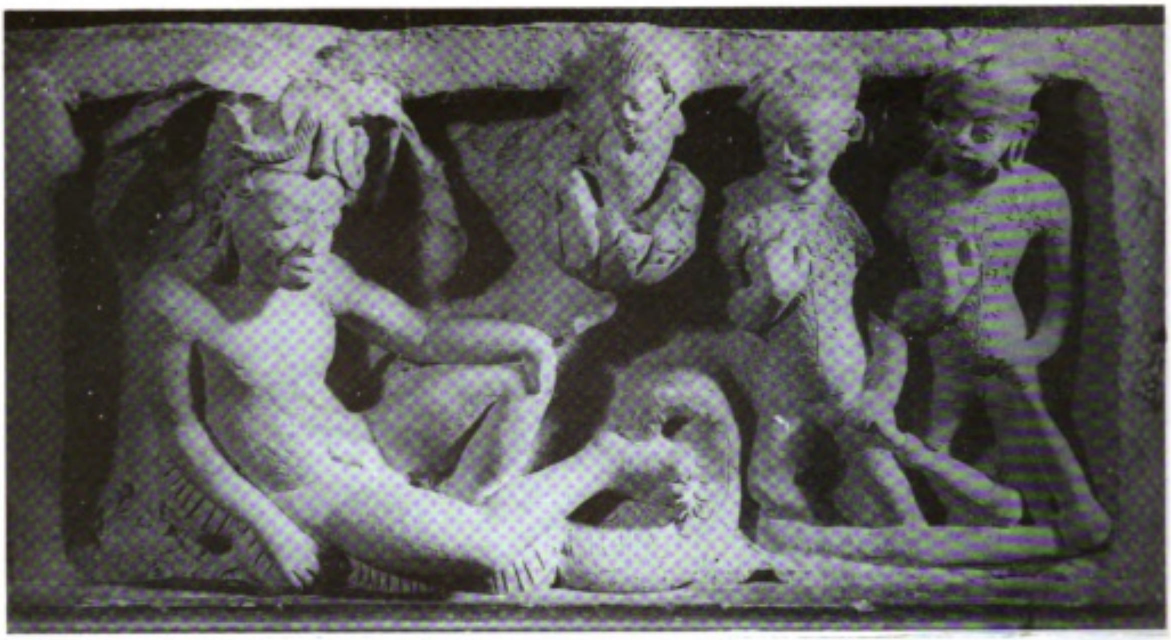
Pl. 28.2. Carved ring-stone (disc) with mother-goddesses (copyright: National Museum, New Delhi)



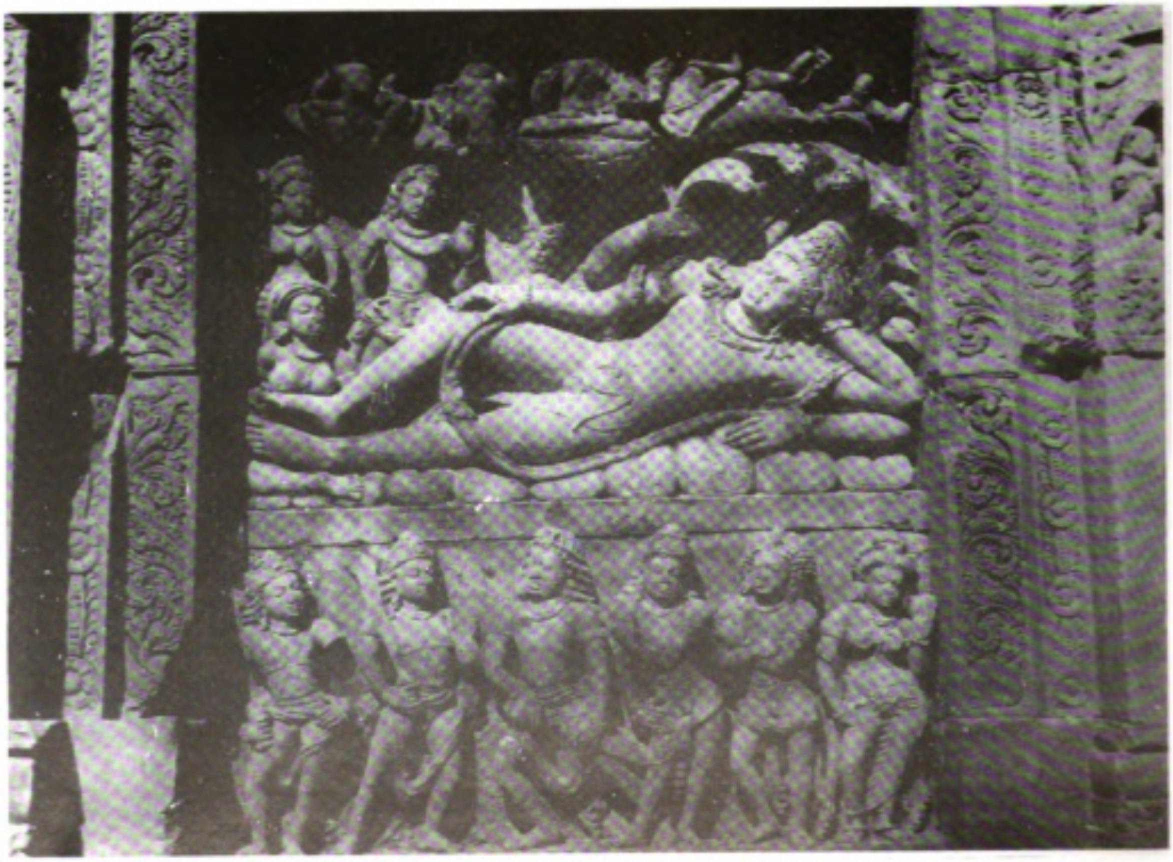
Pl. 28.3. Silver plaque depicting the goddess Cybele, Ai Khanum, Afghanistan (after Henri Paul Frankfort in *Fouilles d'Aï Khanoum*, III, Paris, 1984, Pl. XLI)



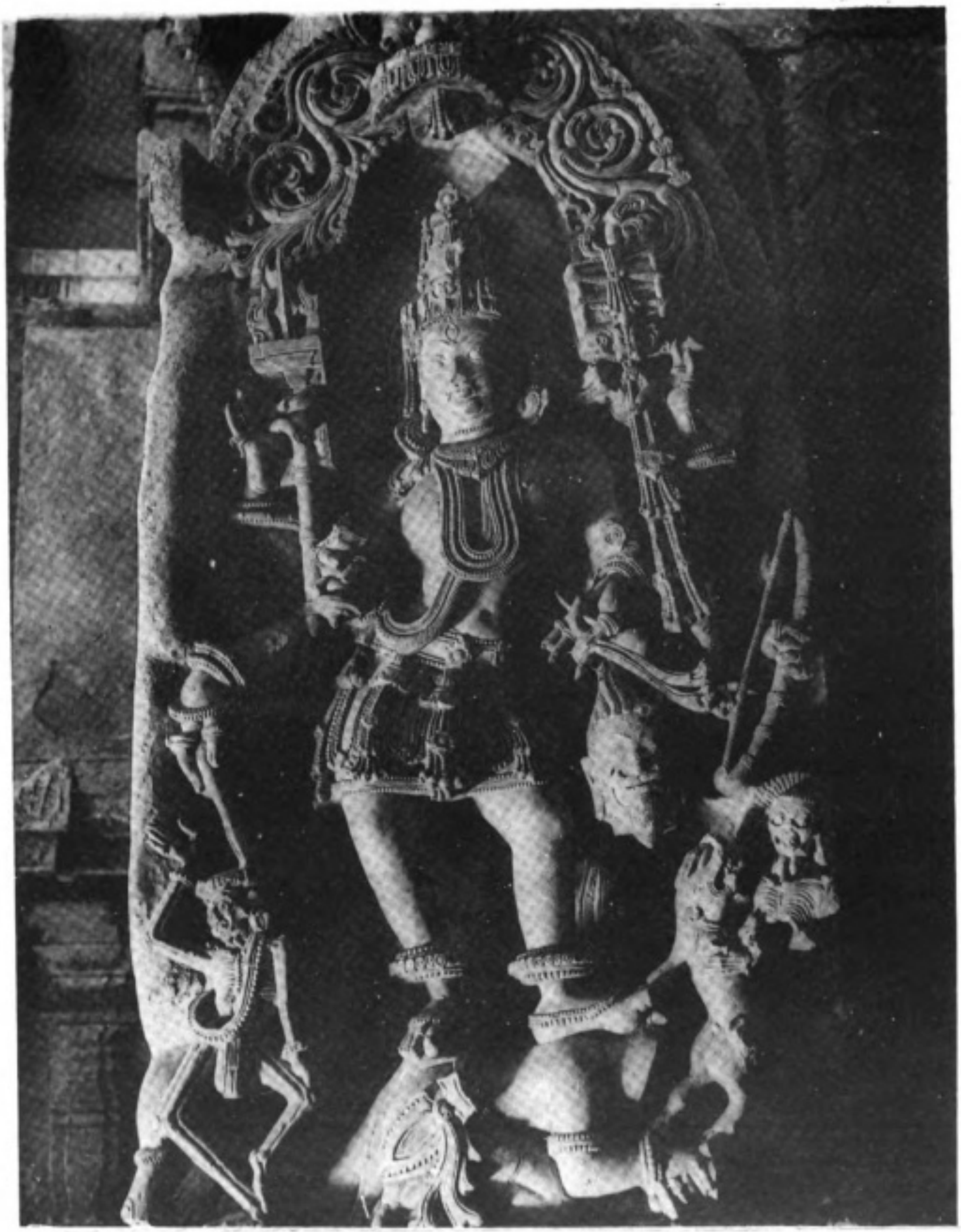
Pl. 28.4. Jaina Sarasvatī, Mathura (copyright: Archaeological Survey of India)



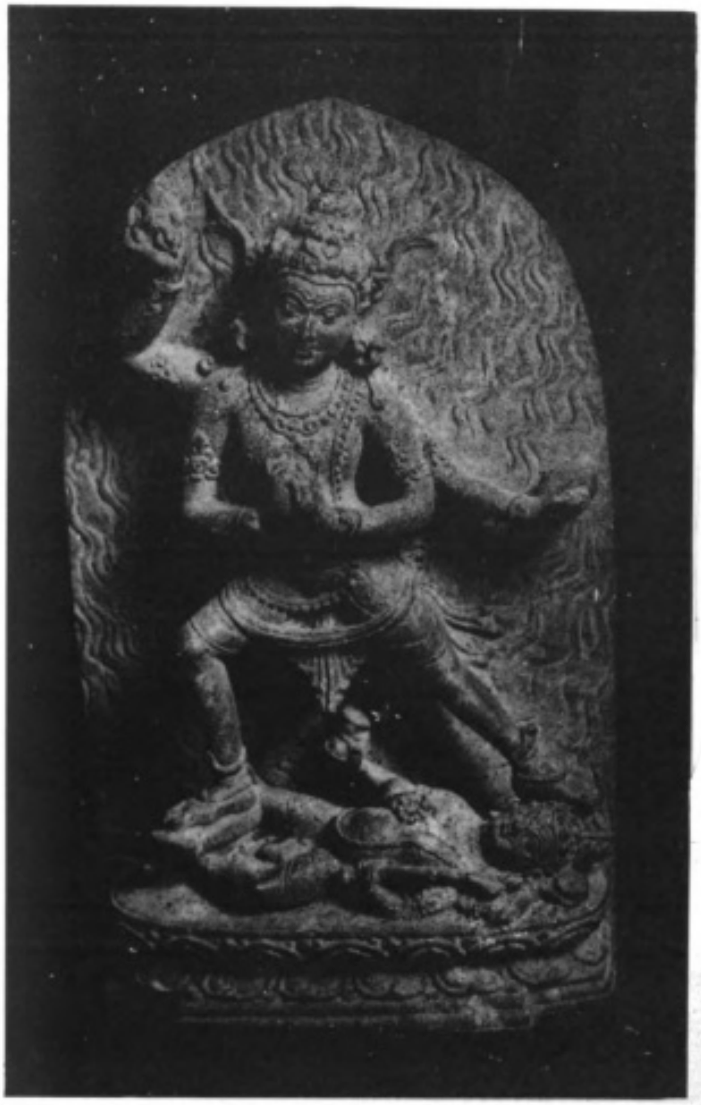
Pl. 28.5. Terracotta plaque showing Śākta Anantaśāyin Vishṇu, Bhitargaon (copyright: Archaeological Survey of India)



Pl. 28.6. Vaishnava Anantaśāyin Vishṇu, Deogarh (copyright: Archaeological Survey of India)

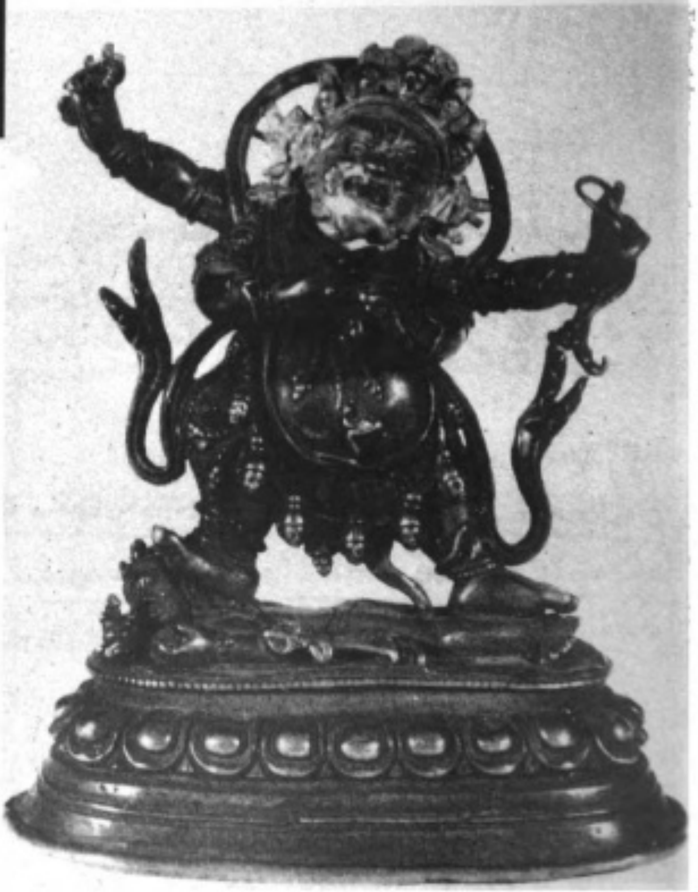


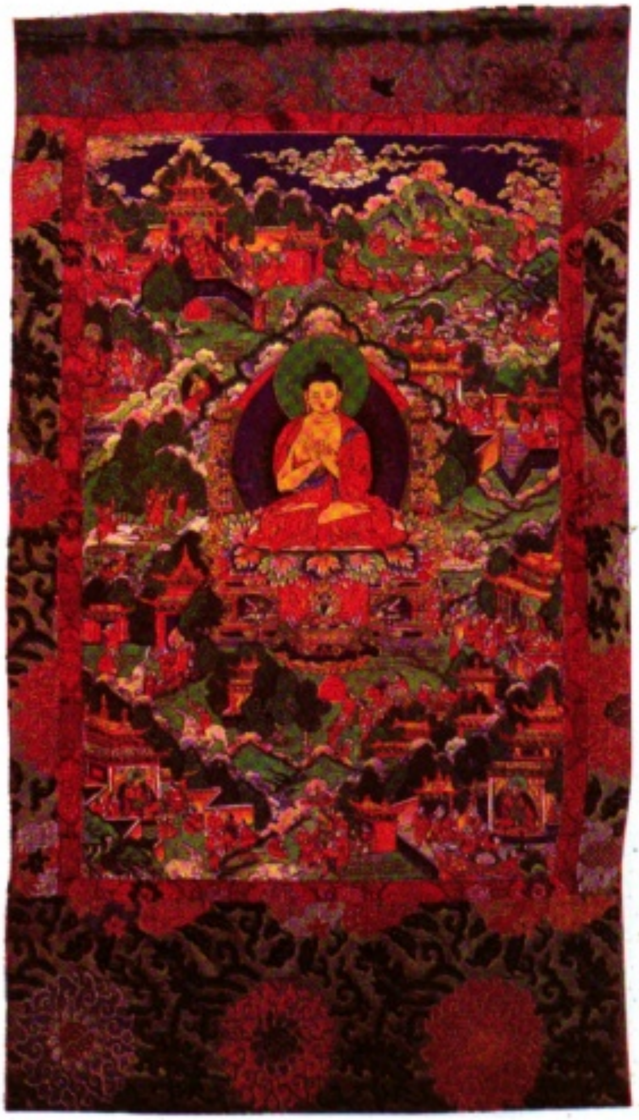
Pl. 28.7. Stone image of Śrī or Tripurā as a slayer of a demon, Halevid (copyright: Archaeological Survey of India)



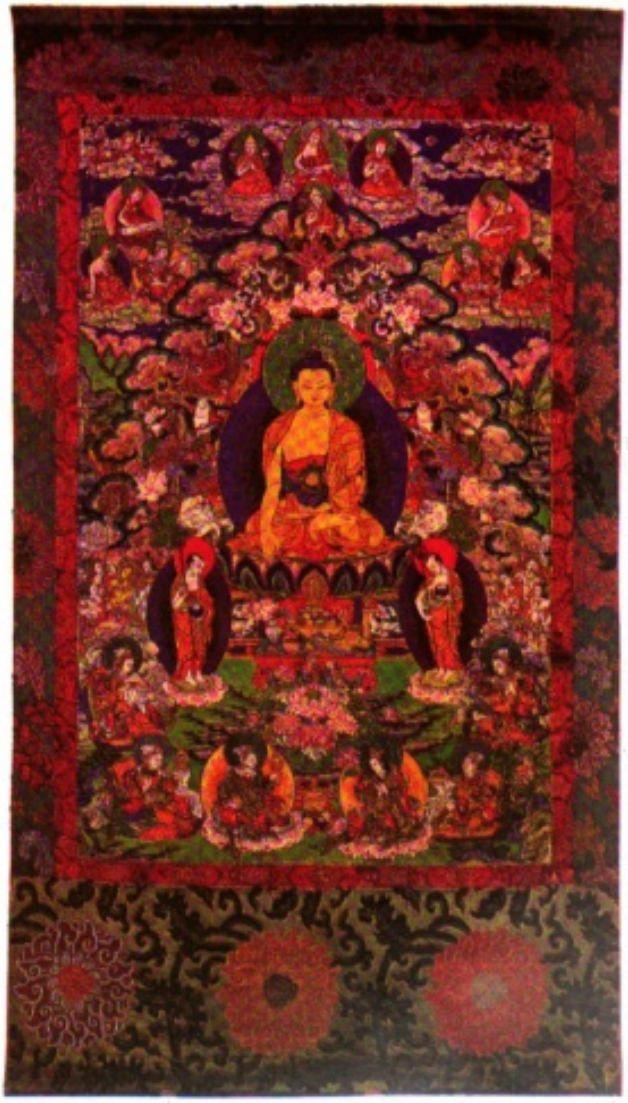
Pl. 29.1. Stone image of Bhūtaḍāmara, Nalanda, now in the Indian Museum, Calcutta (copyright: Indian Museum, Calcutta)

Pl. 29.2. Bronze image of Bhūtaḍāmara, Tibet, now in Hermitage Museum, St. Petersburg (after Pl. XVI, 2 of the *Introduction à l'iconographie du Tântrisme Bouddhique*, Paris, 1975 by Marie-Thérèse de Mallmann)

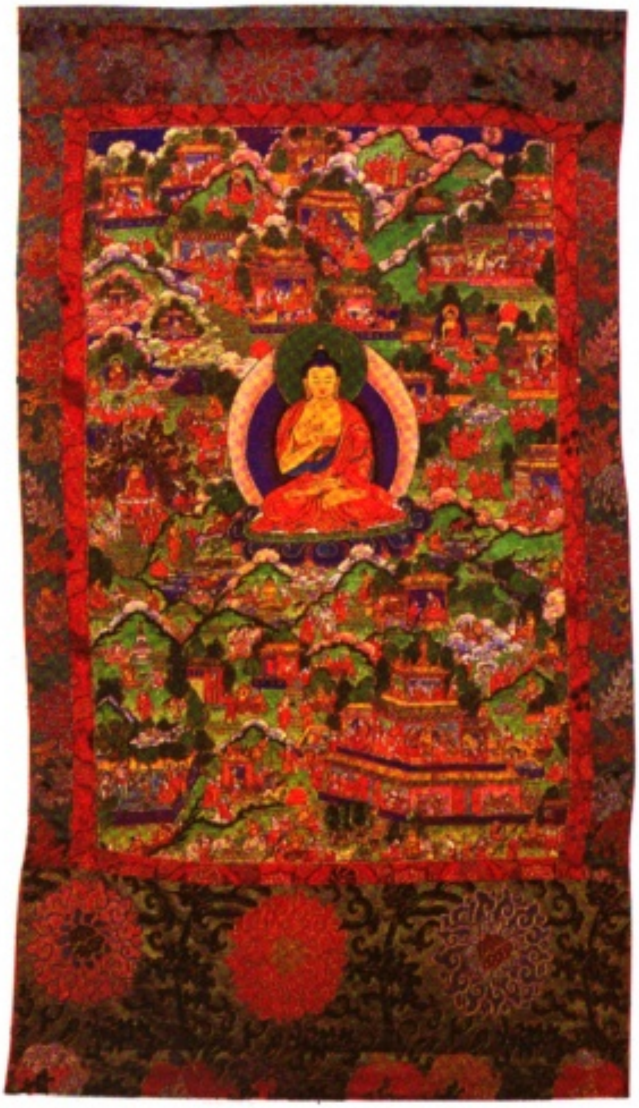




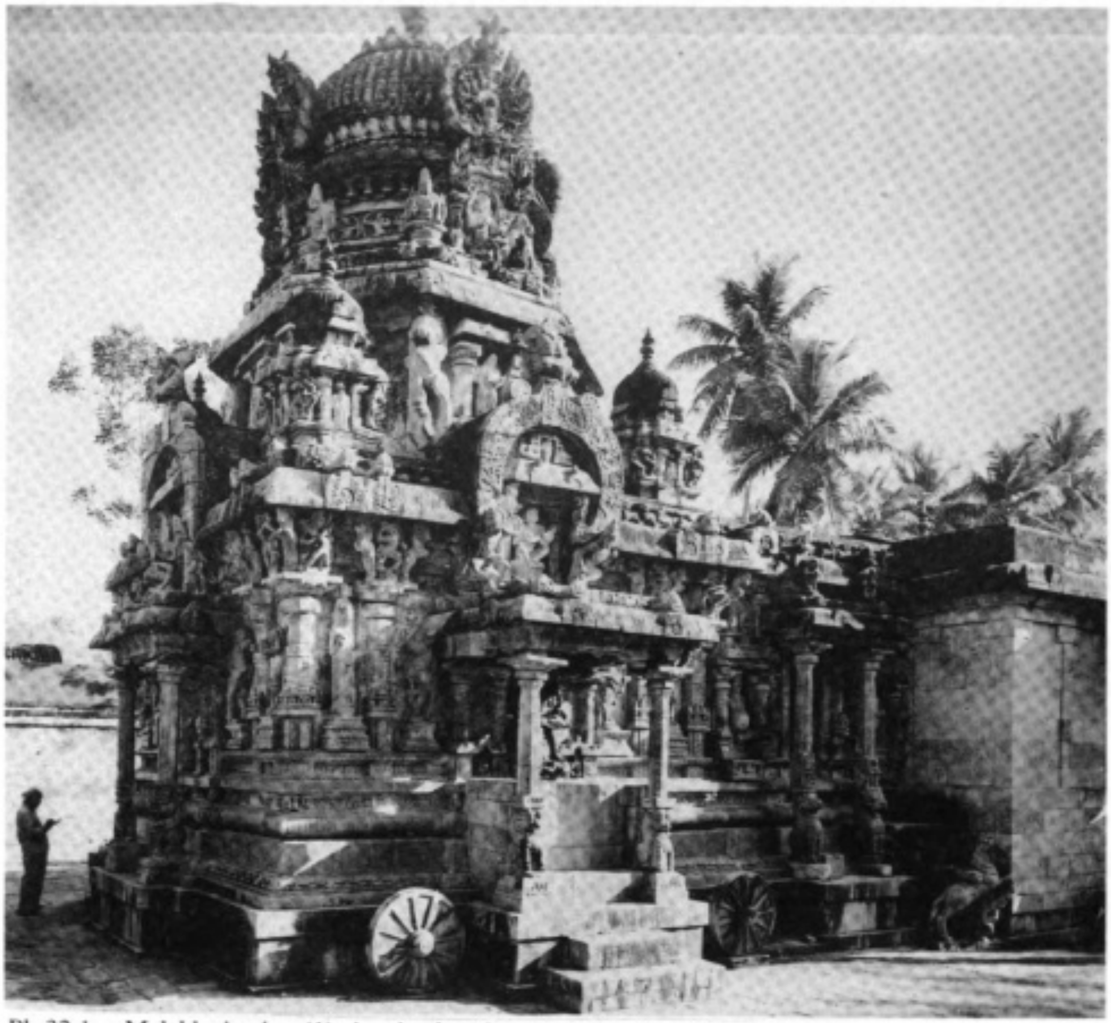
Pl. 30.1. *Thangka* with various Buddhist legends, housed in the Museum of Indian Art Berlin (copyright: Museum of Indian Art Berlin)



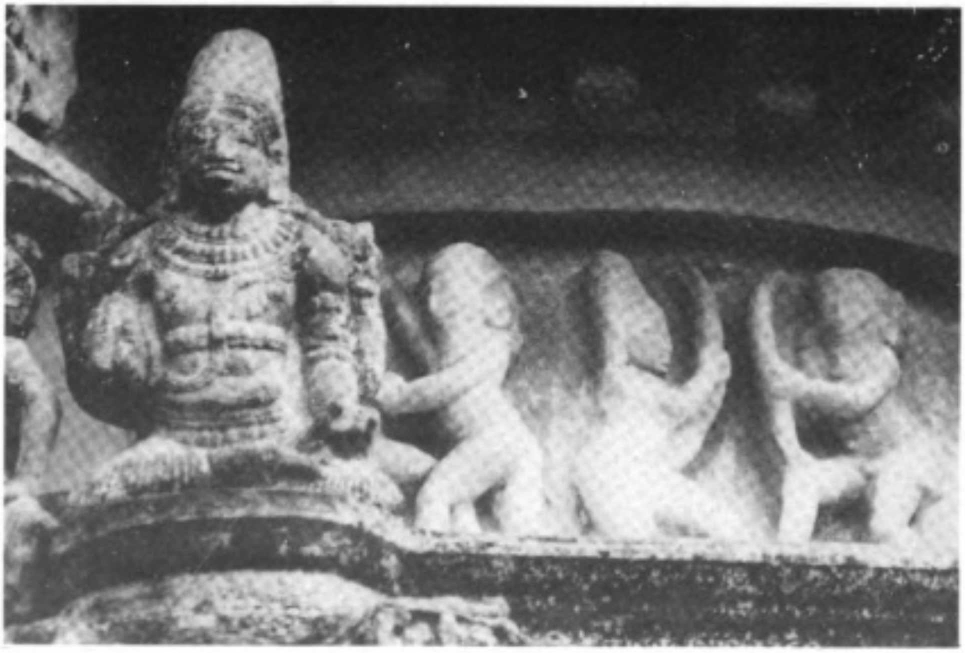
Pl. 30.2. *Thangka* with representations of Śākyamuni Buddha, his two principal disciples and others, housed in the Museum of Indian Art Berlin (copyright: Museum of Indian Art Berlin)



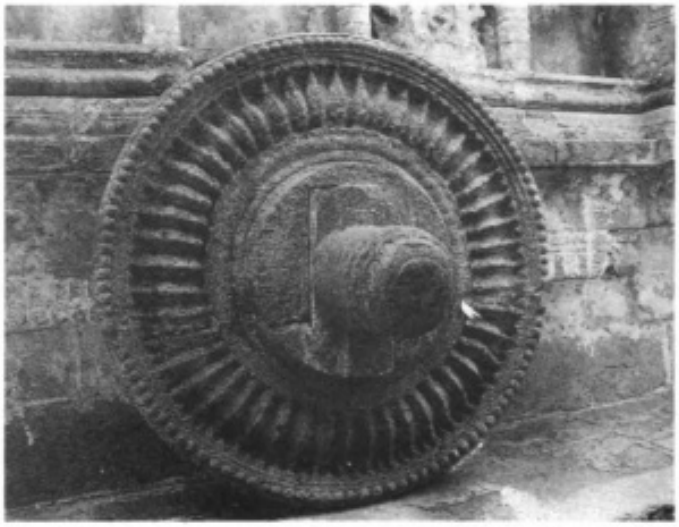
Pl. 30.3. *Thangka* with representations of the incidents of the life of Śākyamuni Buddha, housed in the Museum of Indian Art Berlin (copyright: Museum of Indian Art Berlin)



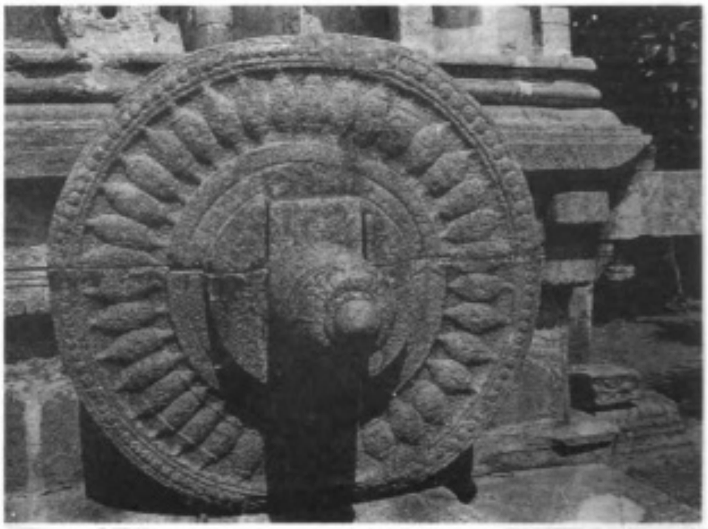
Pl. 32.1. Melakkadambur (1), Amṛitaghaṭeśvara temple, view from south-west (photo courtesy: American Institute of Indian Studies, Varanasi)



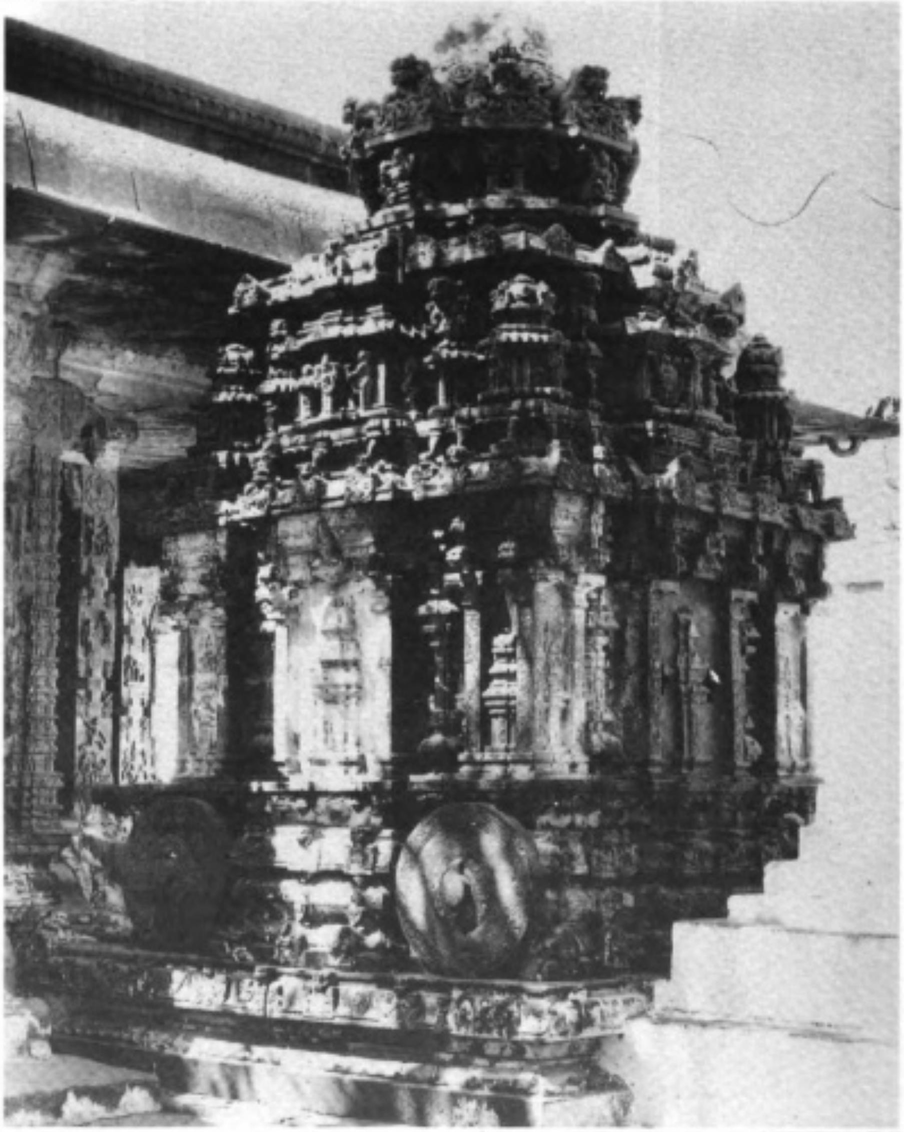
Pl. 32.2. Melakkadambur (1), Amṛitaghaṭeśvara temple, detail of north-western face of *grīva*: unidentified four-armed deity and scene from *Kirātārjunīya* (photo: author)



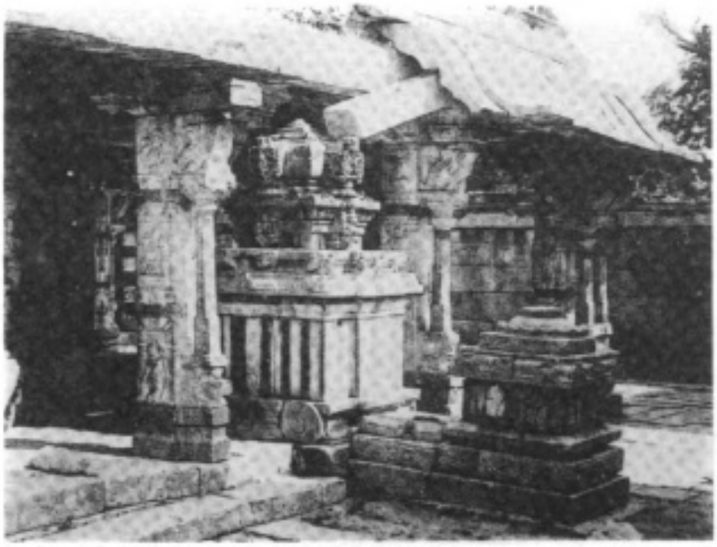
Pl. 32.3. Thiruvarur (3), Tyāgarāja temple compound, Maṇunīti Choḷa shrine, north-western wheel (photo: author)



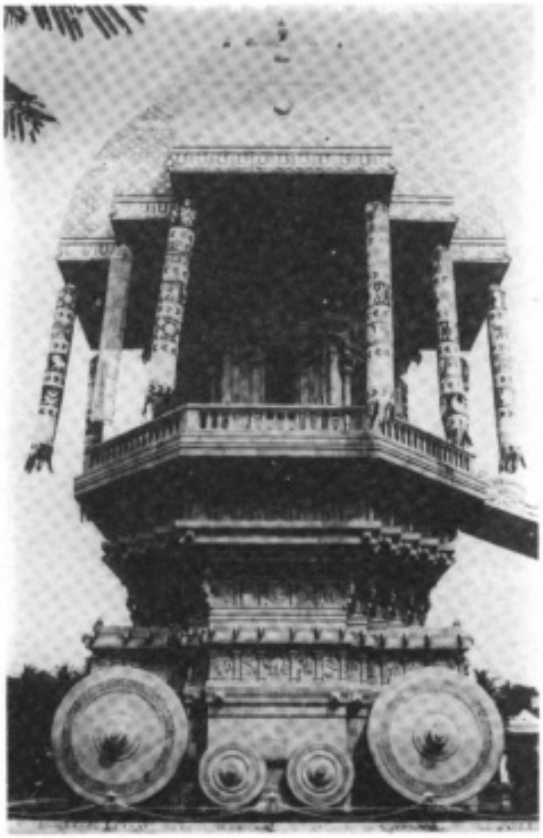
Pl. 32.4. Thiruvarur (3), north-eastern wheel (photo: author)



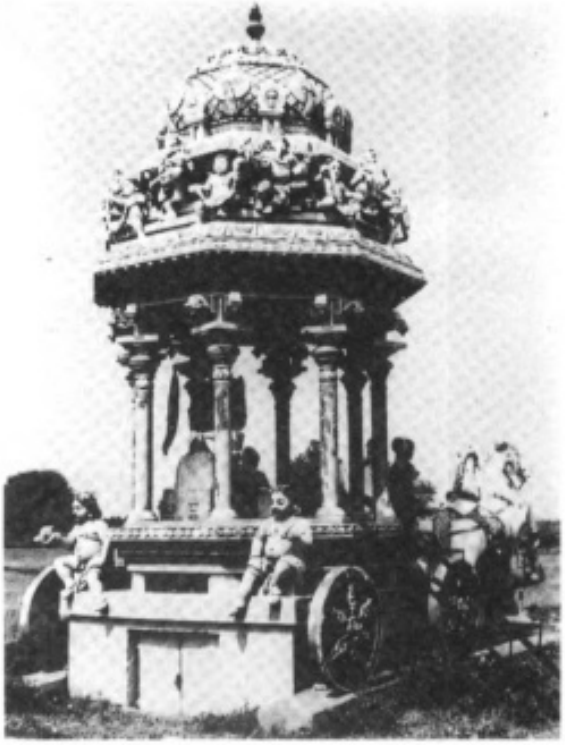
Pl. 32.5. Tadpatri (5), Veṅkaṭarāmaṇa temple, Garuḍa shrine, view from south-east (photo courtesy: American Institute of Indian Studies, Varanasi)



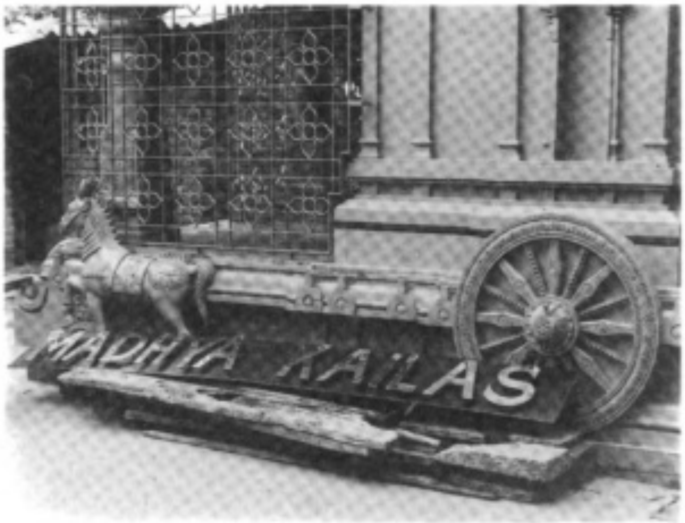
Pl. 32.6. Somapalem (6), Chennakeśava temple, *mahāmaṇḍpa* and Garuḍa shrine, view from south-east (after *ARASI 1903-04*)



Pl. 32.7 Madras (7), Vaḻḻuvar Koṭṭam, view from west (photo: author)

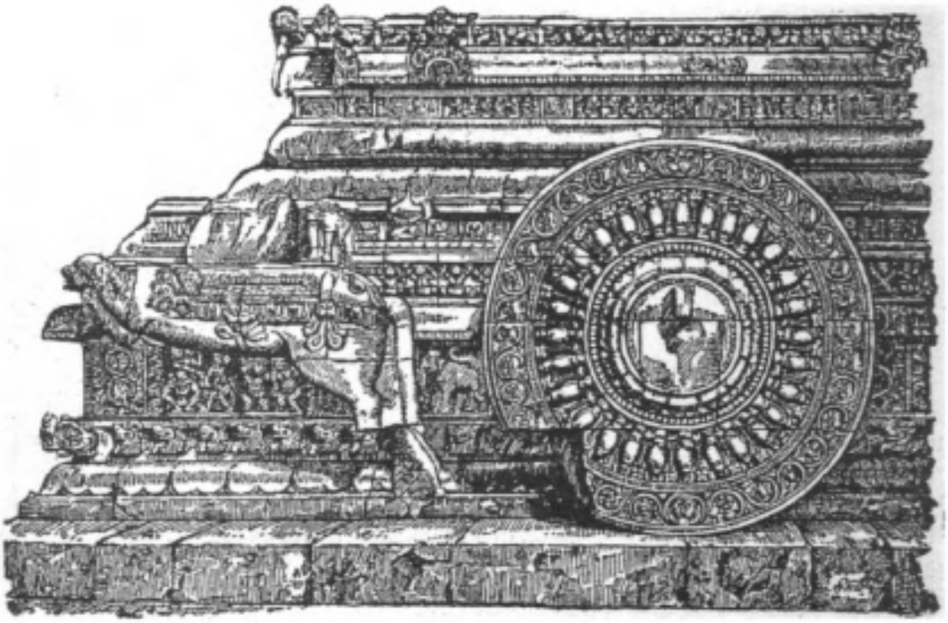


Pl. 32.8. Near Melakkadambur (8), Gaṇapati roadside shrine, view from south-west (photo: author)

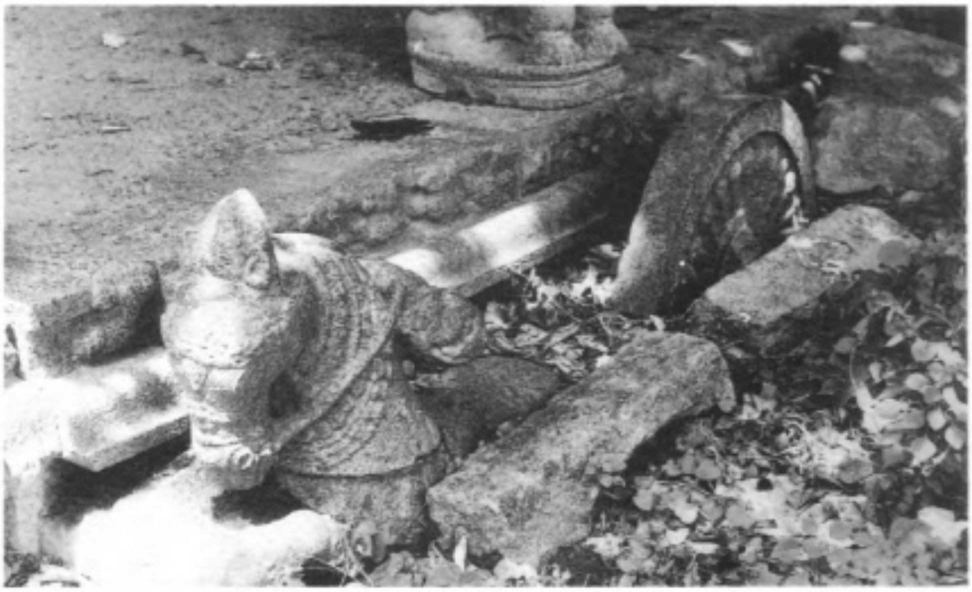


Pl. 32.9. Madras (10), Madhya Kailāsa temple, Āditya shrine, view from north-west (photo: author)

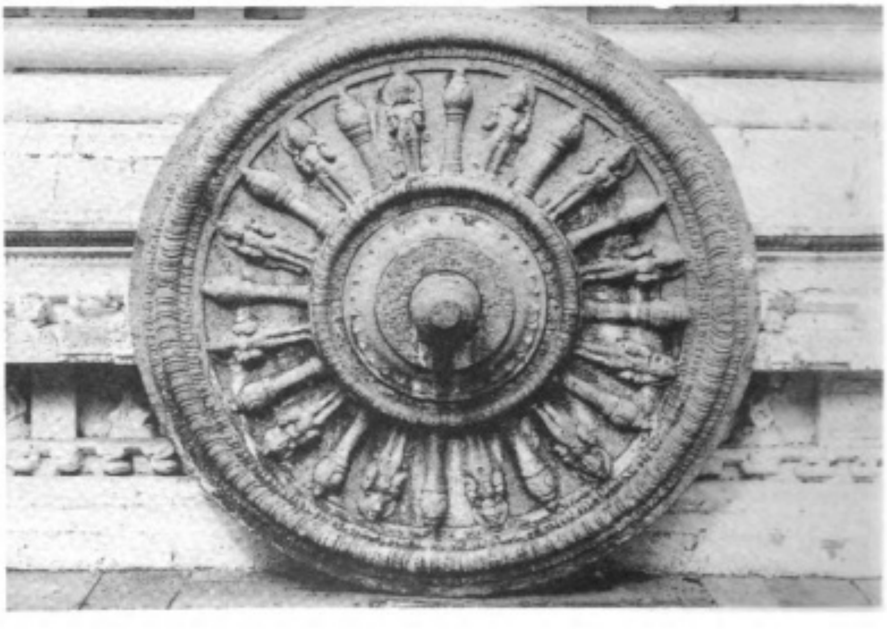
Pl. 32.10. Chidambaram (11), Naṭarāja temple *nṛittasabhā*, western wheel and horse · (after Somasundaram Pillai 1963)

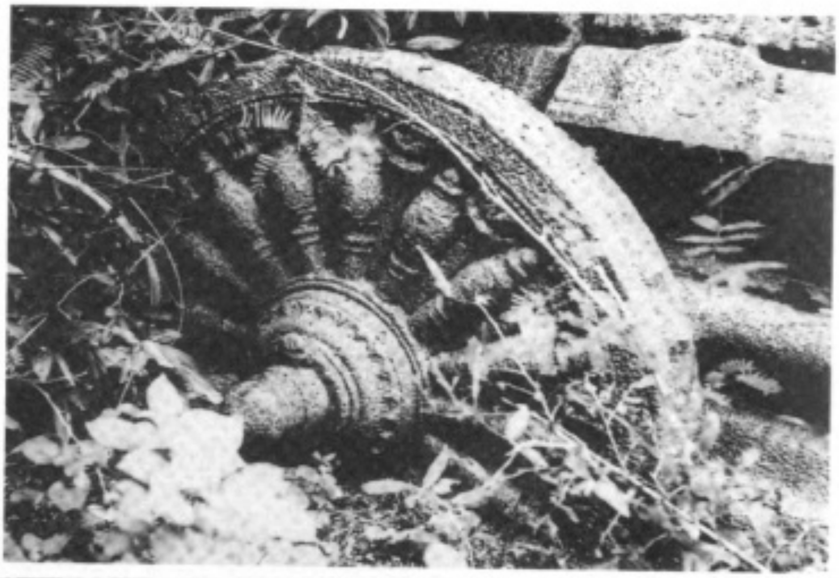


Pl. 32.11. Thiruvakkarai (12), Chandramaulīśvara temple, "100-pillared" *maṇḍapa*, northern horse and wheel (photo: author)

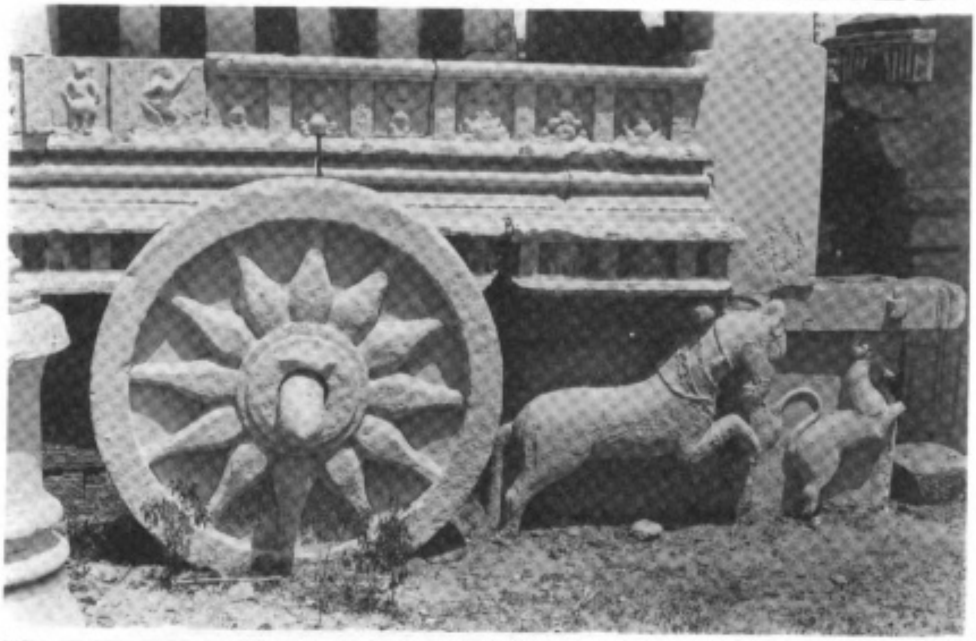


Pl. 32.12. Kumbhakonam (13), Nāgeśvara temple, Naṭarāja *maṇḍapa*, eastern wheel (photo: author)

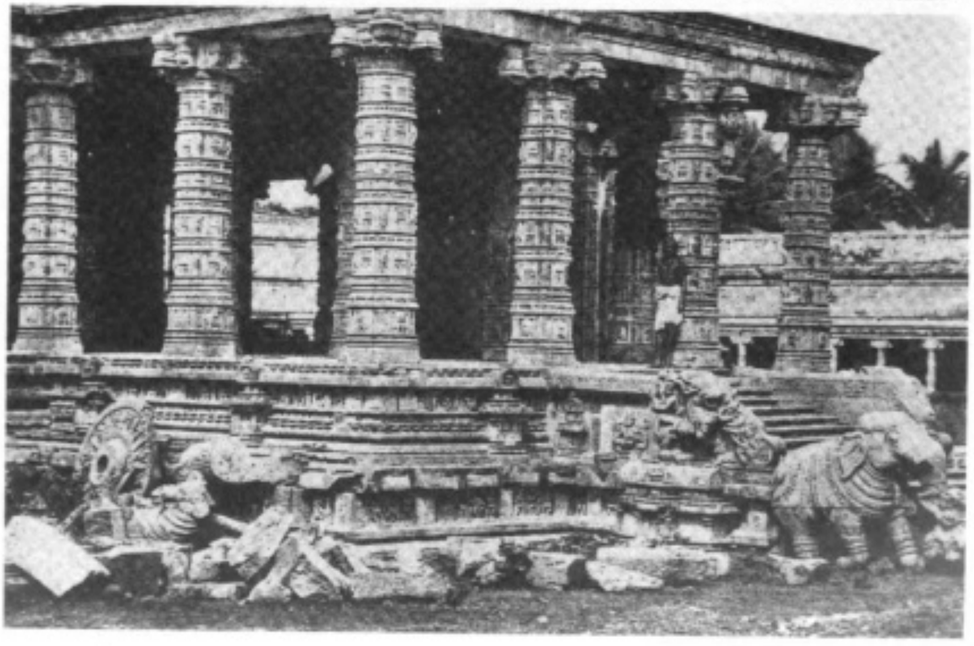




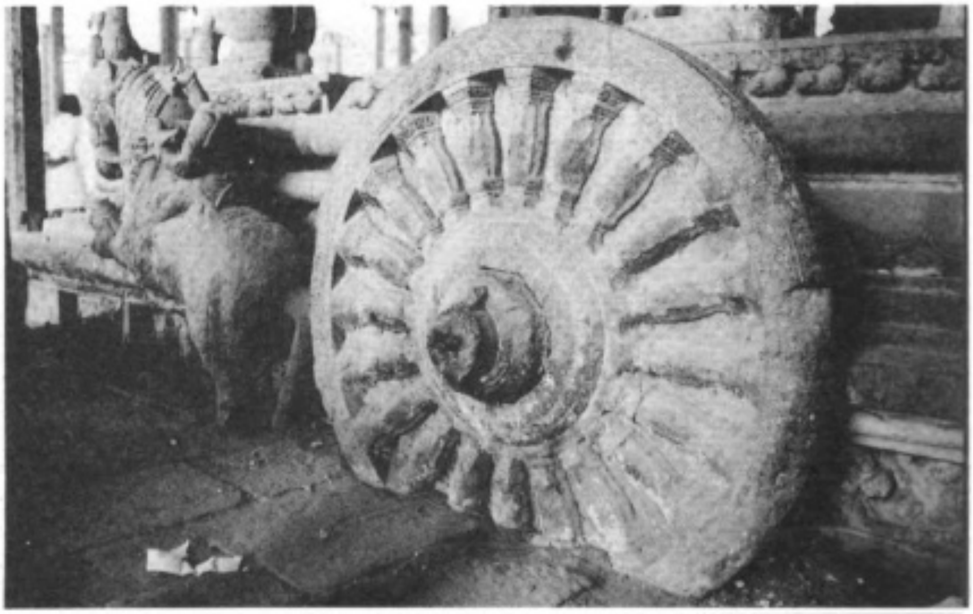
Pl. 32.13. Thiruppulivanam (14), Vyāghrapurīśvara temple, *sabhāmaṇḍapa*, western wheel (photo: author)



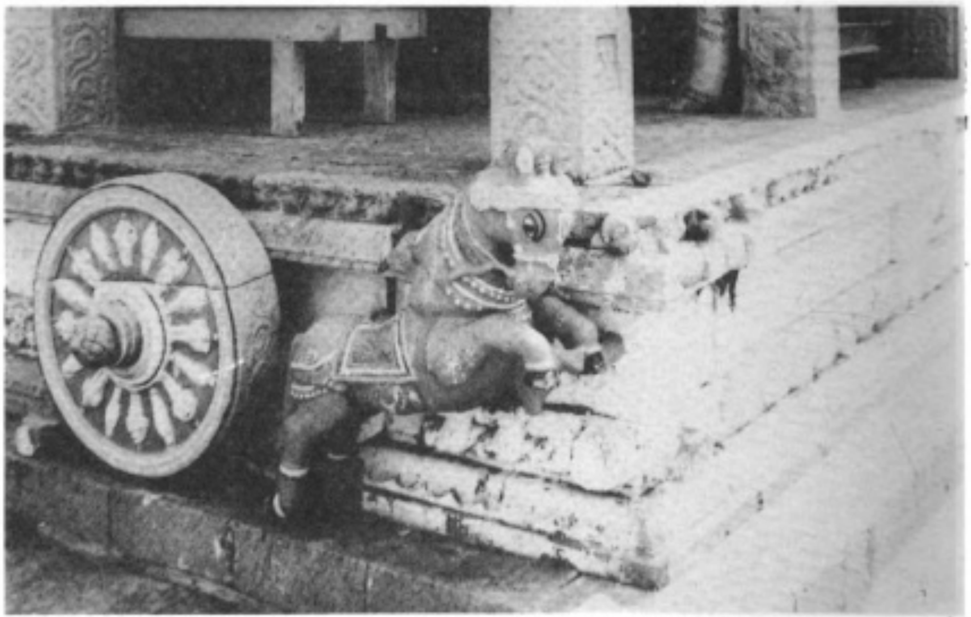
Pl. 32.14. Uttarakosamangai (15), Maṅgalanātha temple, Naṭarāja *maṇḍapa*, western wheel and horse (photo: author)



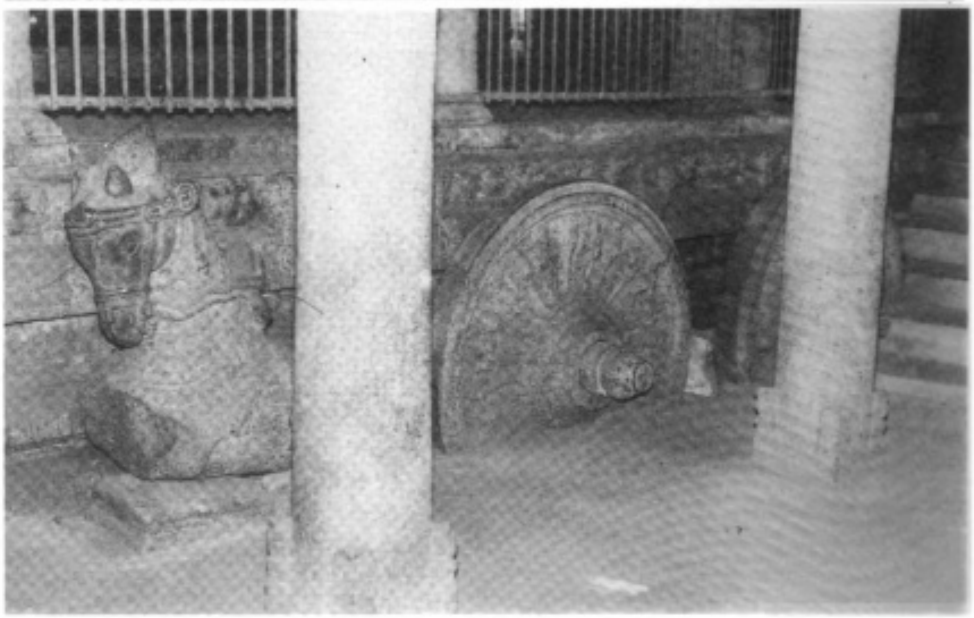
Pl. 32.15. Chidambaram (16), Naṭarāja temple, Pāṇḍya-nāyaka-*maṇḍpa*, remnants of southern horse and wheel (after Glasenapp 1928)



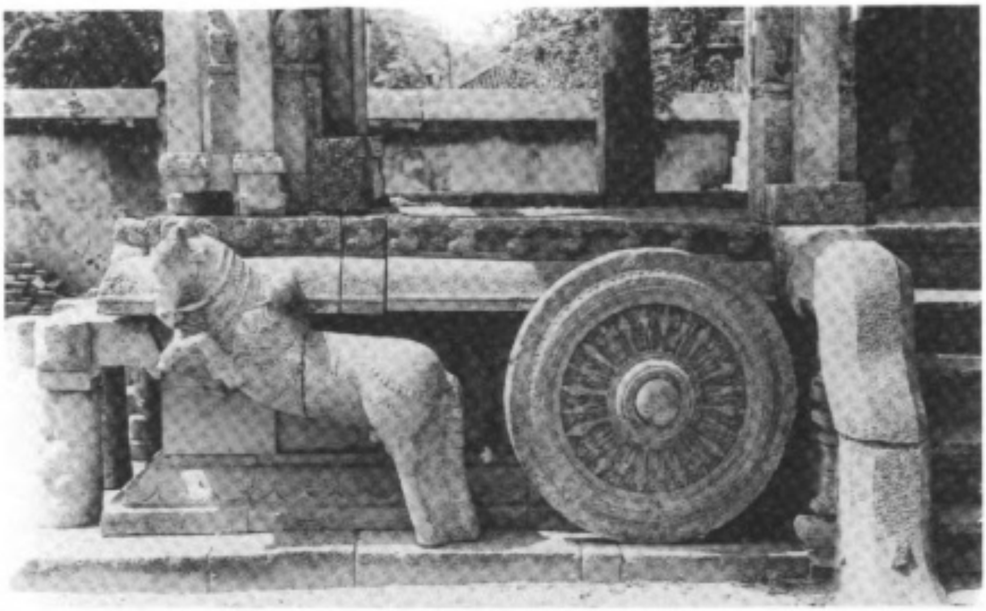
Pl. 32.16. Vriddhachalam (17), Vṛiddhagirīśvara temple, '*Chitramaṇḍapa*', eastern wheel and horse (photo: author)



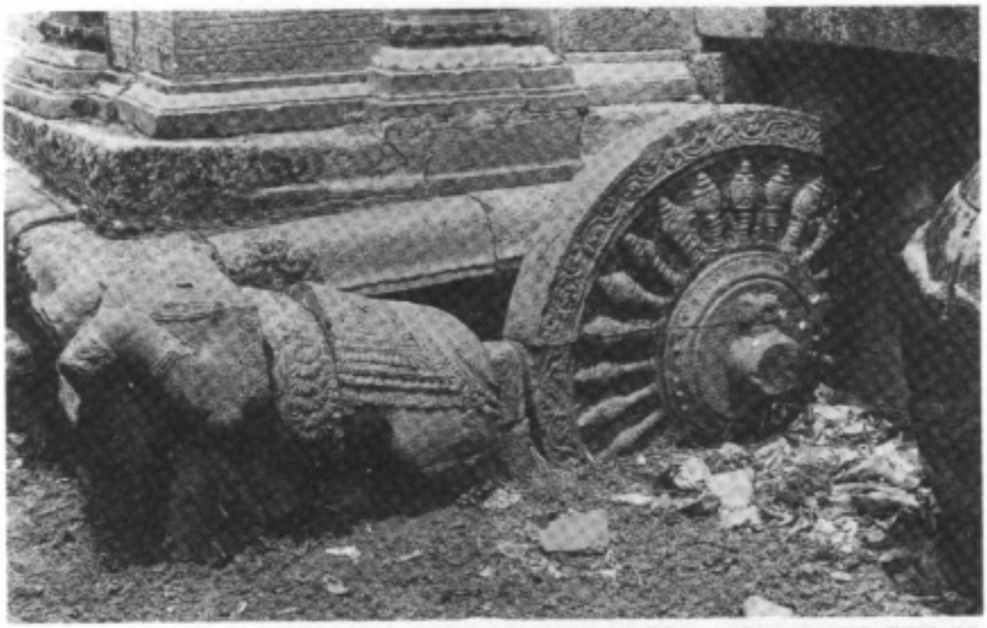
Pl. 32.17. Thirukkarukavur (18), Mullaivaṇanātha temple, *rathamaṇḍapa*, view from south-west (photo: author)



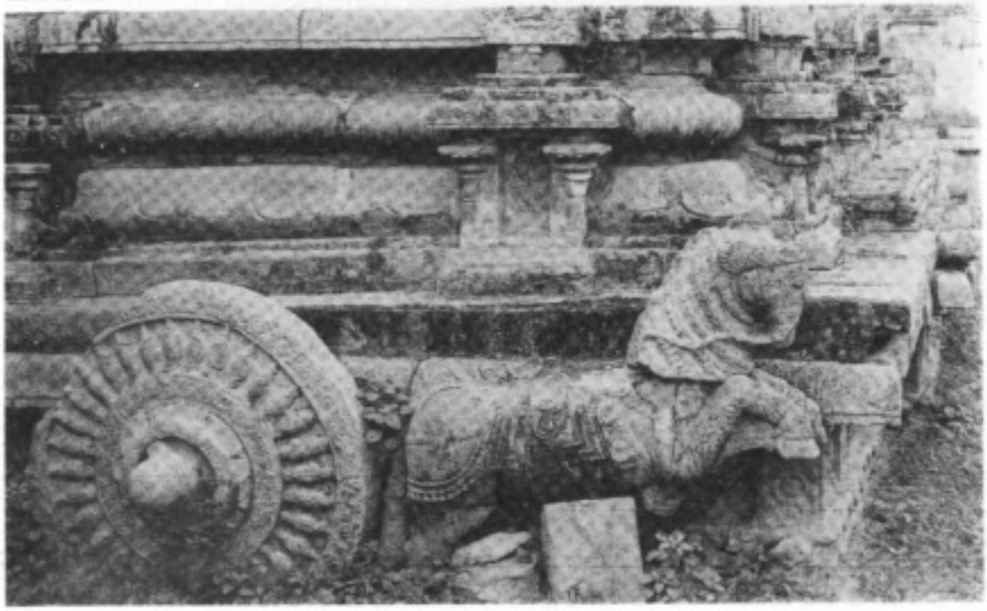
Pl. 32.18. Srirangam (19), Raṅganātha temple, "1000-pillared" *maṇḍapa*, eastern horse and wheels (photo: author)



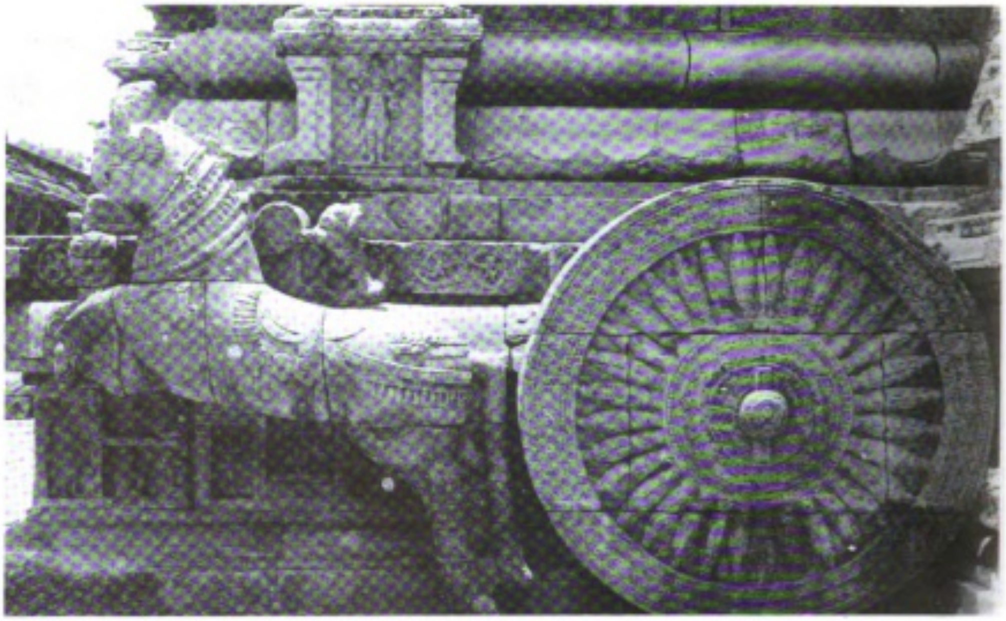
Pl. 32.19. Kunnandarkoyil (20), Parvatagirīśvara temple, "100-pillared" *maṇḍapa*, northern wheel and horse (photo: author)



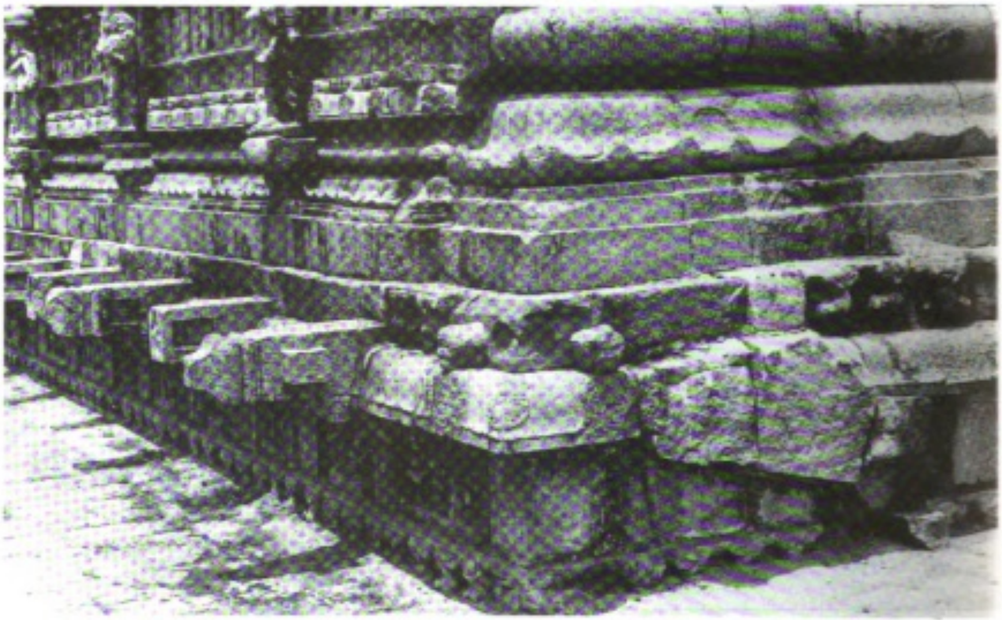
Pl. 32.20. Tukkachchi (23), Āpatsahāyeśvara temple, *agramaṇḍapa*, eastern wheel and horse (photo: author)



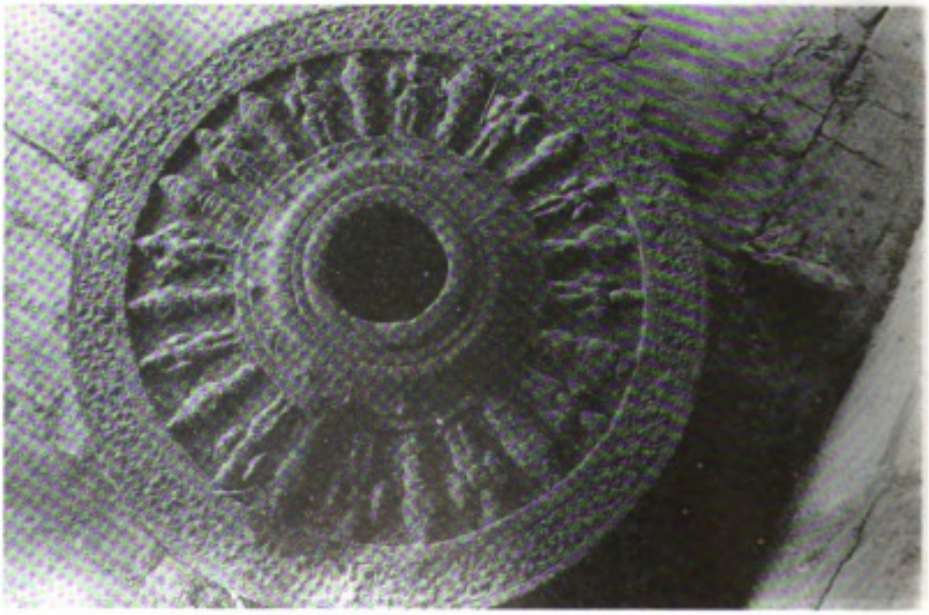
Pl. 32.21. Kilapalaiyarai (24), Somanātha temple, *agramaṇḍapa*, western wheel and horse (photo: author)



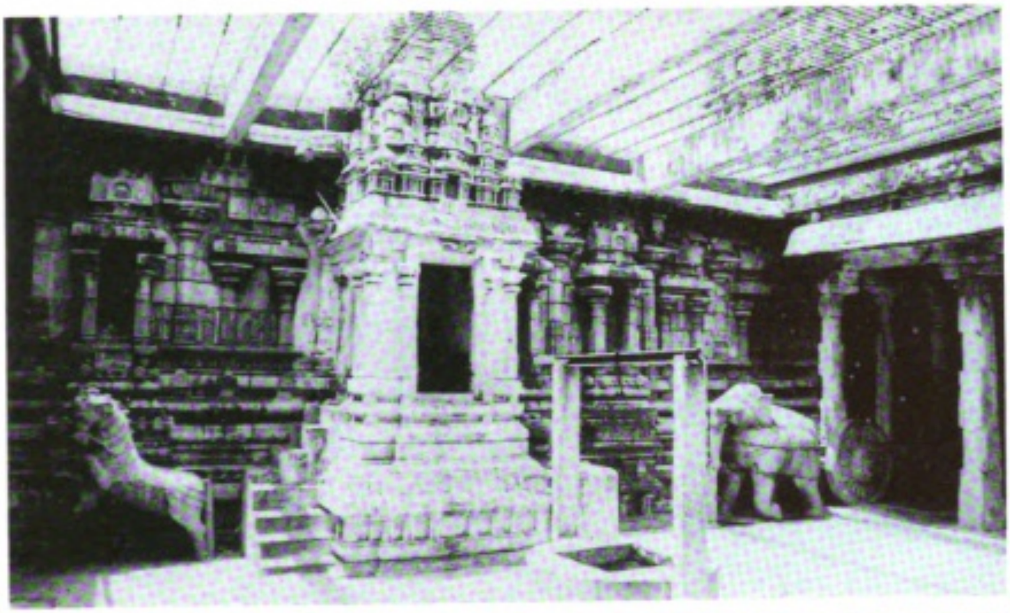
Pl. 32.22. Darasuram (25), Airāvateśvara temple, *agramaṇḍapa*, eastern wheel and horse; note the figures of Chandra in the *devakoshṭha* and of Buddha in the *upapīṭha* below the horse (photo: author)



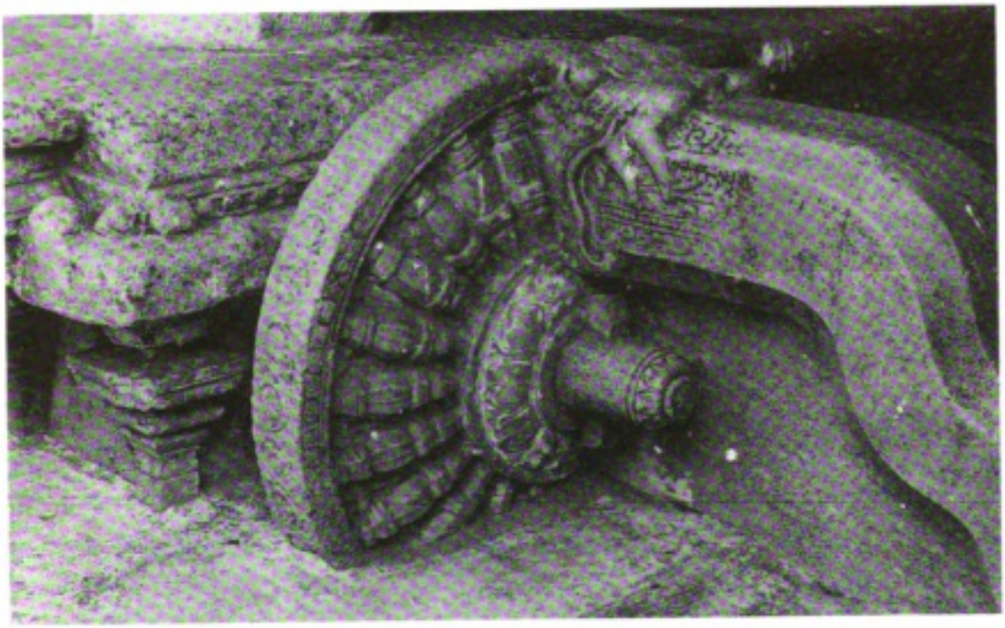
Pl. 32.23. Tribhuvanam (26), Kampahareśvara temple, *agramaṇḍapa*, view from south-east; note remnants of the eastern horse (photo: author)



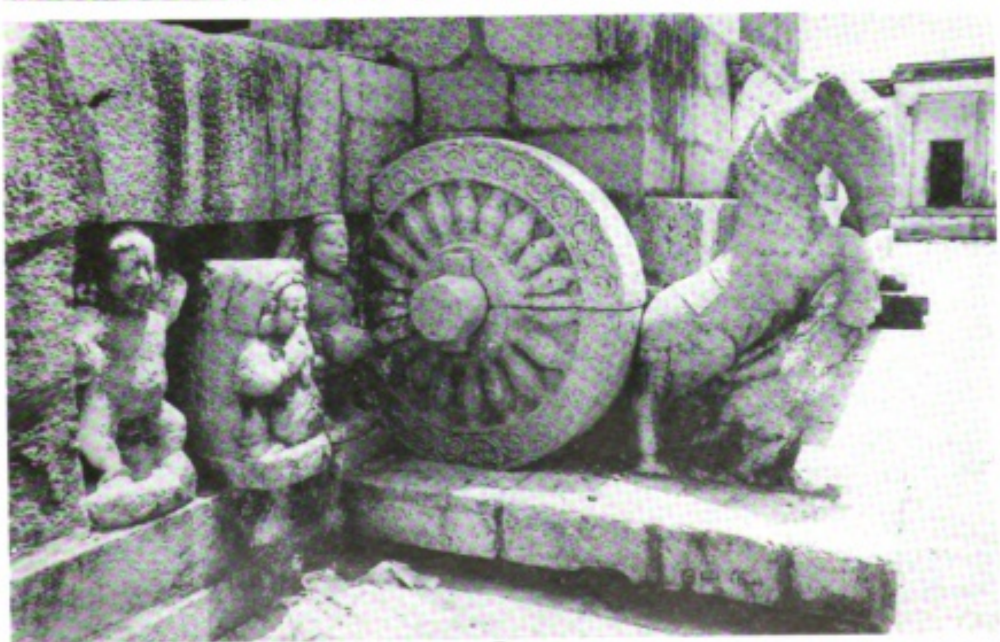
Pl. 32.24. Tribhuvanam (26), detached wheel, now stored in souther *mālikā* (photo: author)



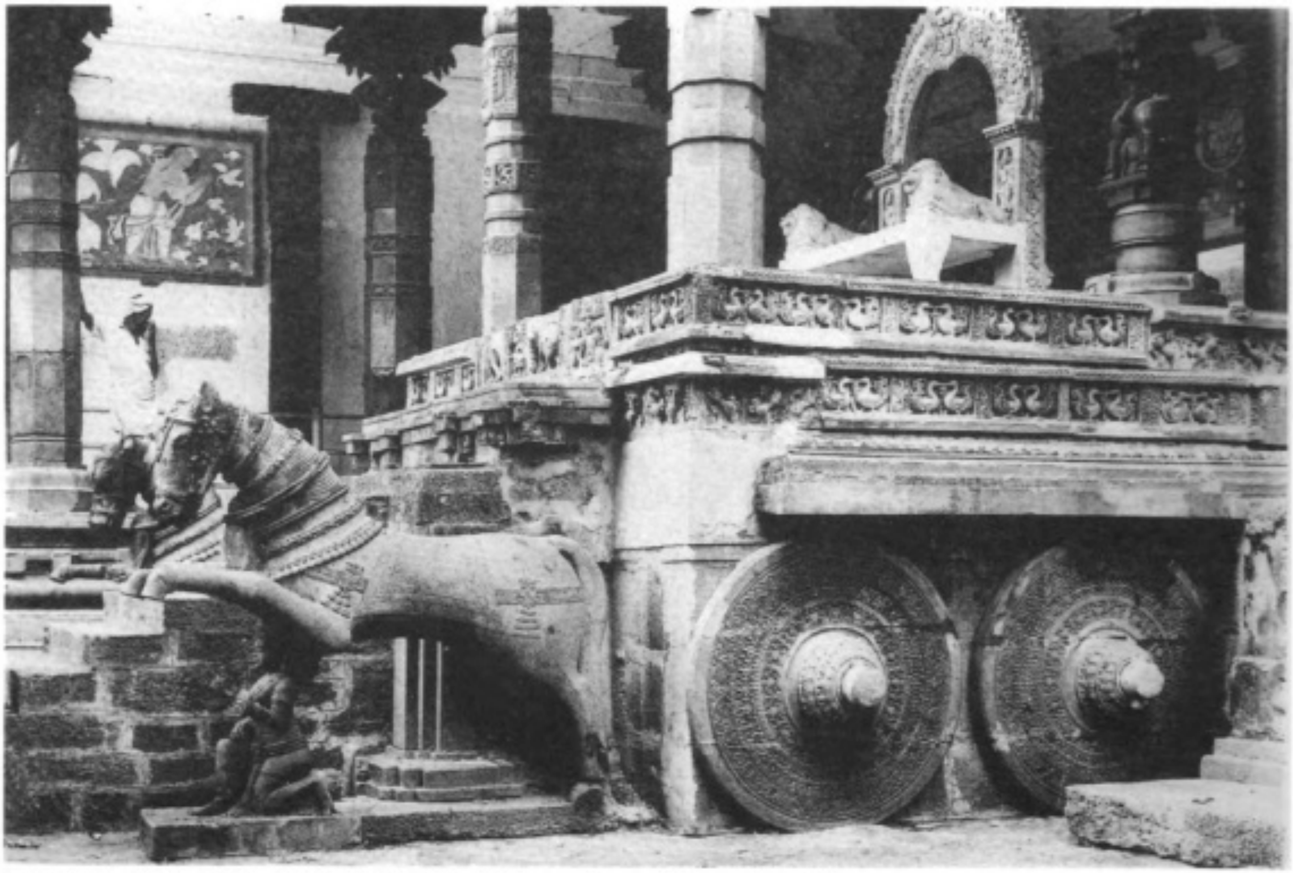
Pl. 32.25. Kumbhakonam (27), Śārṅgapāṇi temple, *mahāmaṇḍapa*, view from north-east (photo: author)



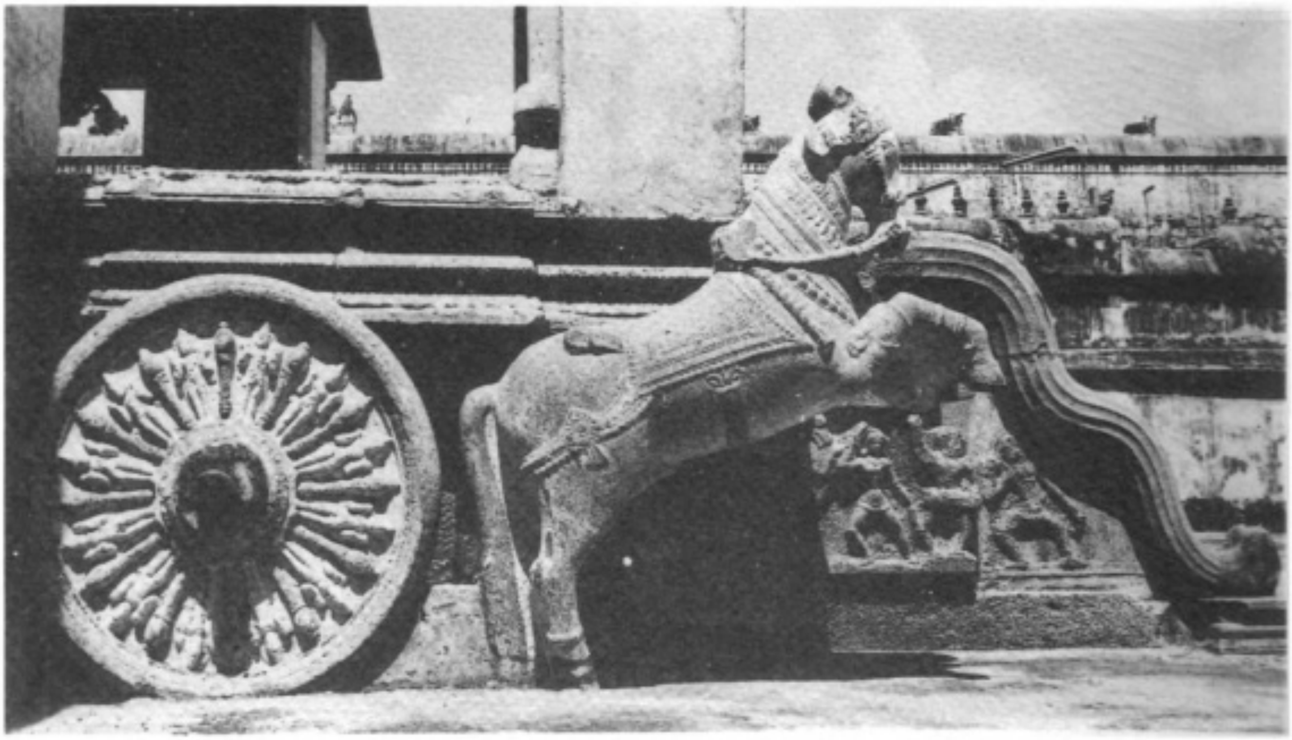
Pl. 32.26. Thiruvalanjuli (28), Śveta Vināyaka temple, *mukhamaṇḍapa*, eastern wheel (photo: author)



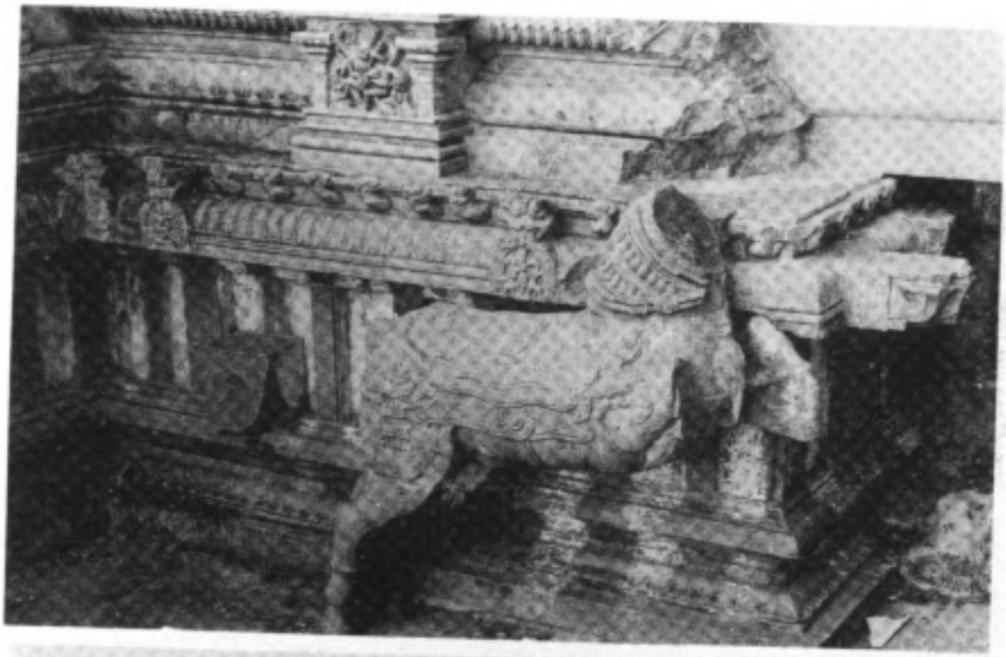
Pl. 32.27. Chayavanam (29), Chhāyāvaneśvara temple, *mukhamaṇḍapa*, western wheel and horse (photo: author)



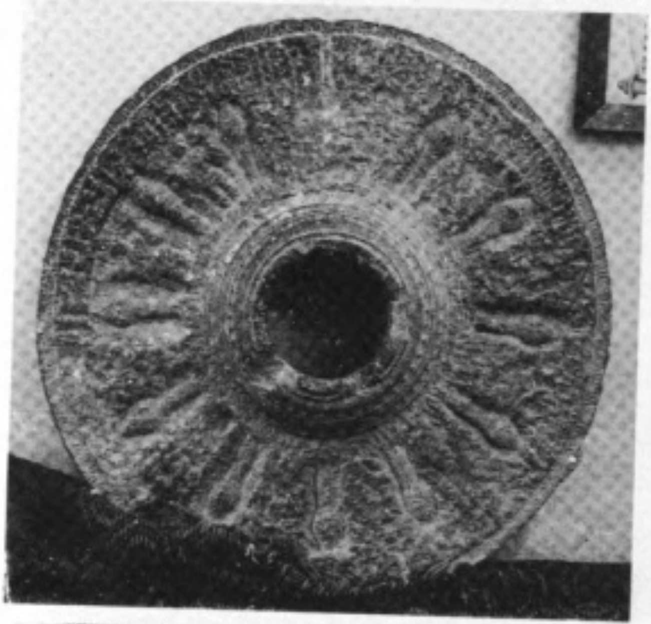
Pl. 32.28. Simhachalam (30), Varāha-Narasiṁha temple, *mukhamaṇḍapa* of eastern *mālikā*, southern horse and wheels (photo courtesy: American Institute of Indian Studies, Varanasi)



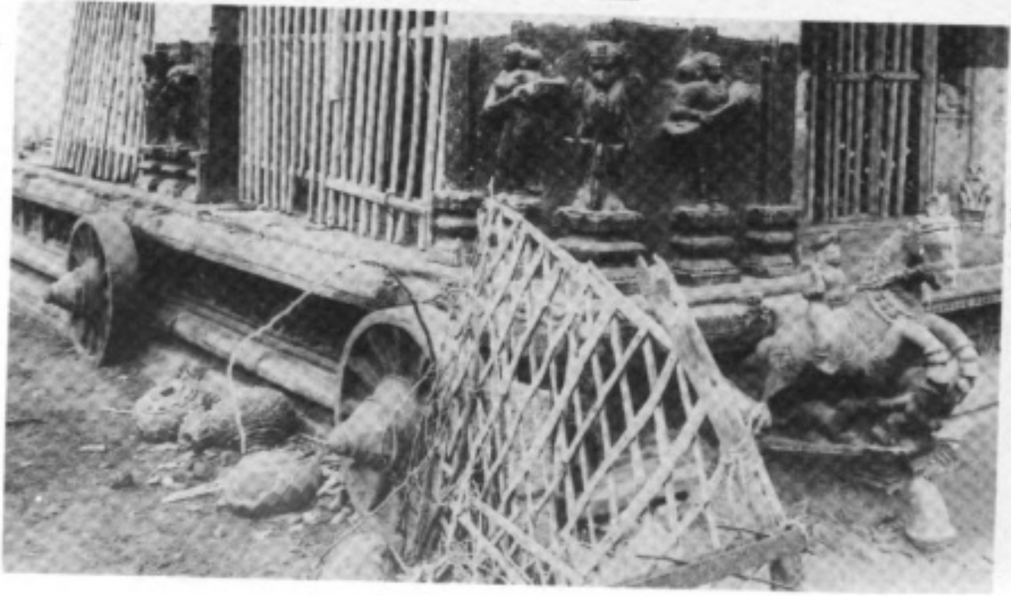
Pl. 32.29. Thiruvidaimarudur (31), Mahāliṅgeśvara temple, Subrahmaṇya shrine, *mukhamaṇḍapa*, southern wheel and horse (photo courtesy: French Institute, Pondicherry)



Pl. 32.30. Thanjavur (32), Rājarājeśvara temple, Subrahmaṇya shrine, *mukhamaṇḍapa*, remnants of southern wheel and horse (photo: author)

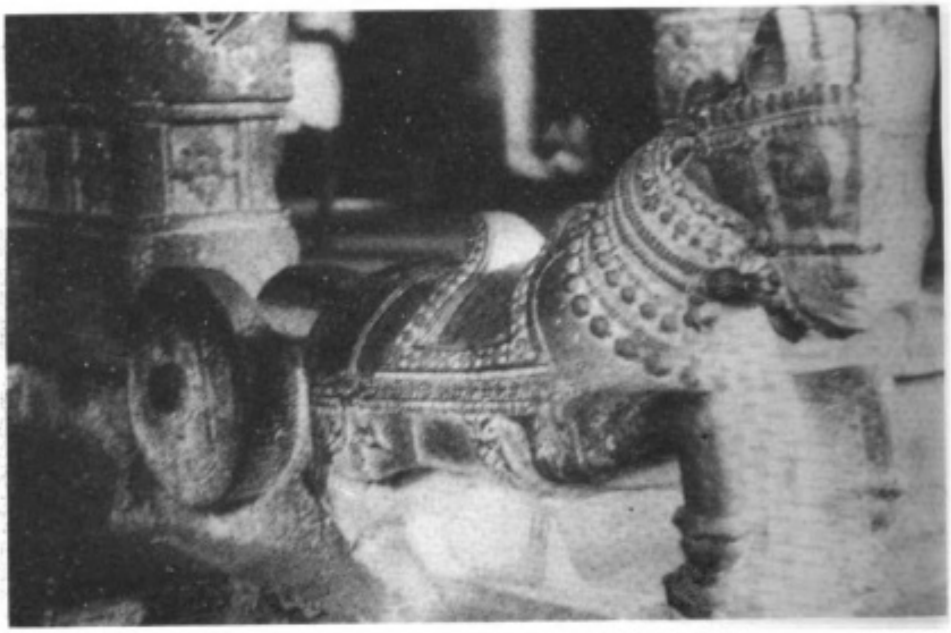


Pl. 32.31. Thanjavur (32), Rājarājeśvara temple, detached wheel stored in southern *mālikā* (photo: author)

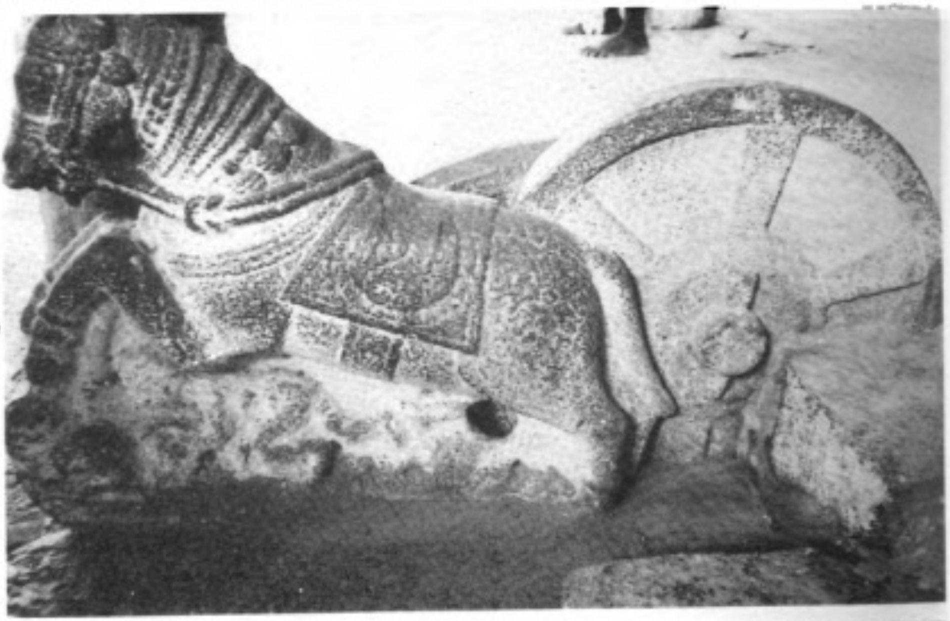


Pl. 32.32. Orattanadu (33), Maṅgammāḷ Choultry, south-western corner of eastern wing (photo: author)

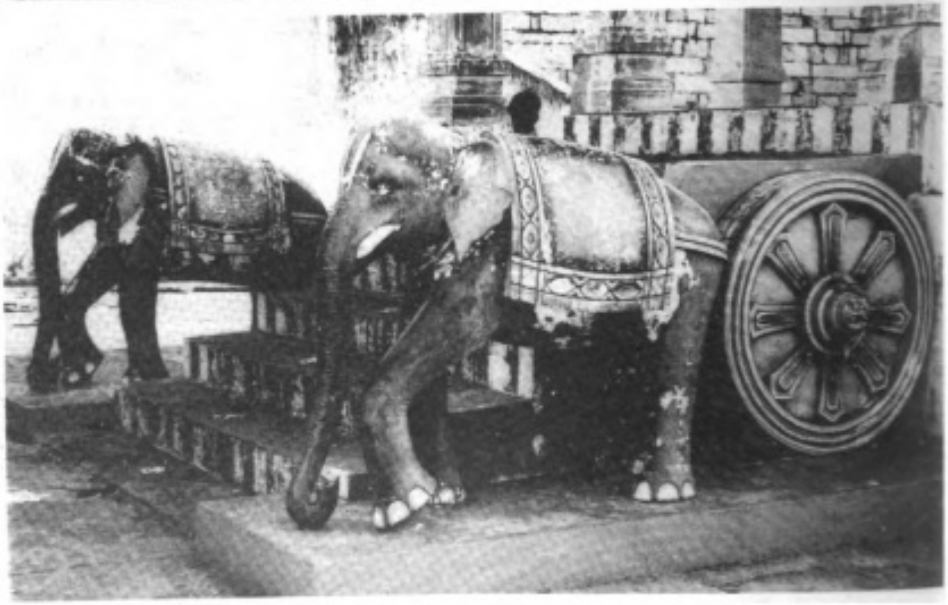
Pl. 32.33. Thirupparankunram (36), Subrahmaṇya temple, western banister of steps in front of *kalyāṇamaṇḍapa* (photo: author)

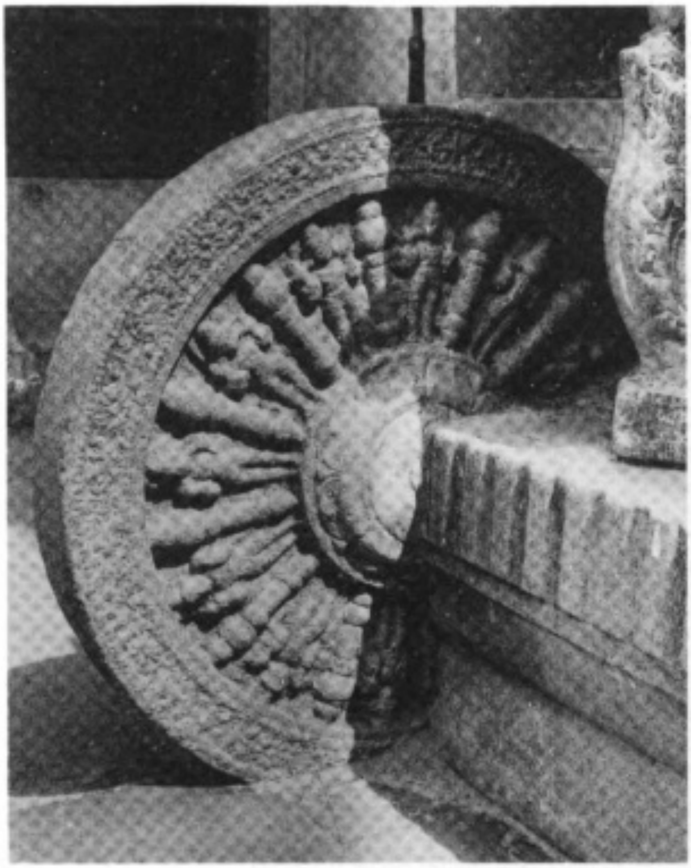


Pl. 32.34. Ariyalur (37), Kodaṇḍarāma temple, southern horse and wheel flanking steps to *mahāmaṇḍapa* (photo: author)

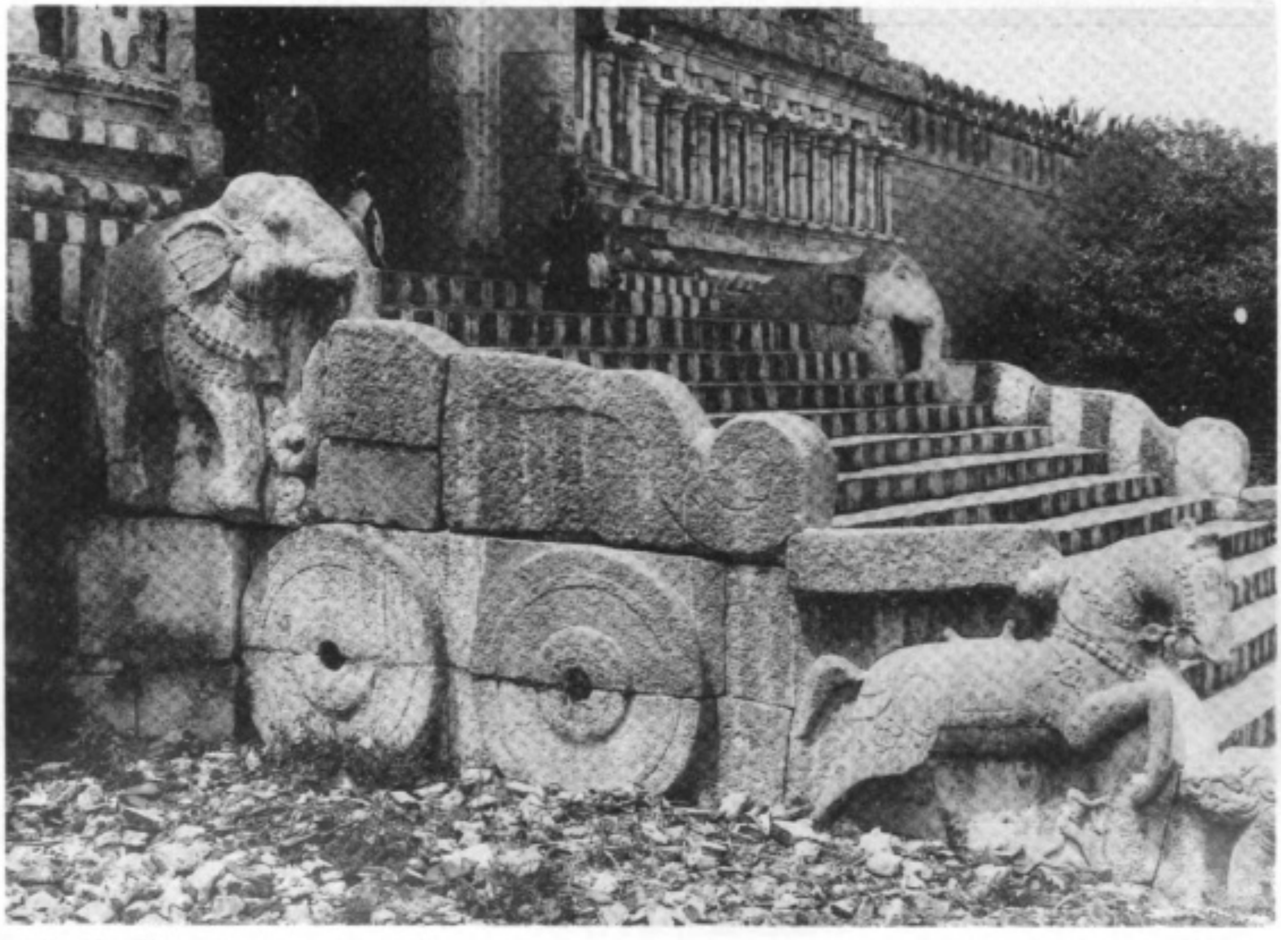


Pl. 32.35. Kumbhakonam (38), Chakrapāṇi temple, Vijayavaḷḷi Tāyār shrine, elephants and northern wheel flanking stairway to *mahāmaṇḍpa* (photo: author)

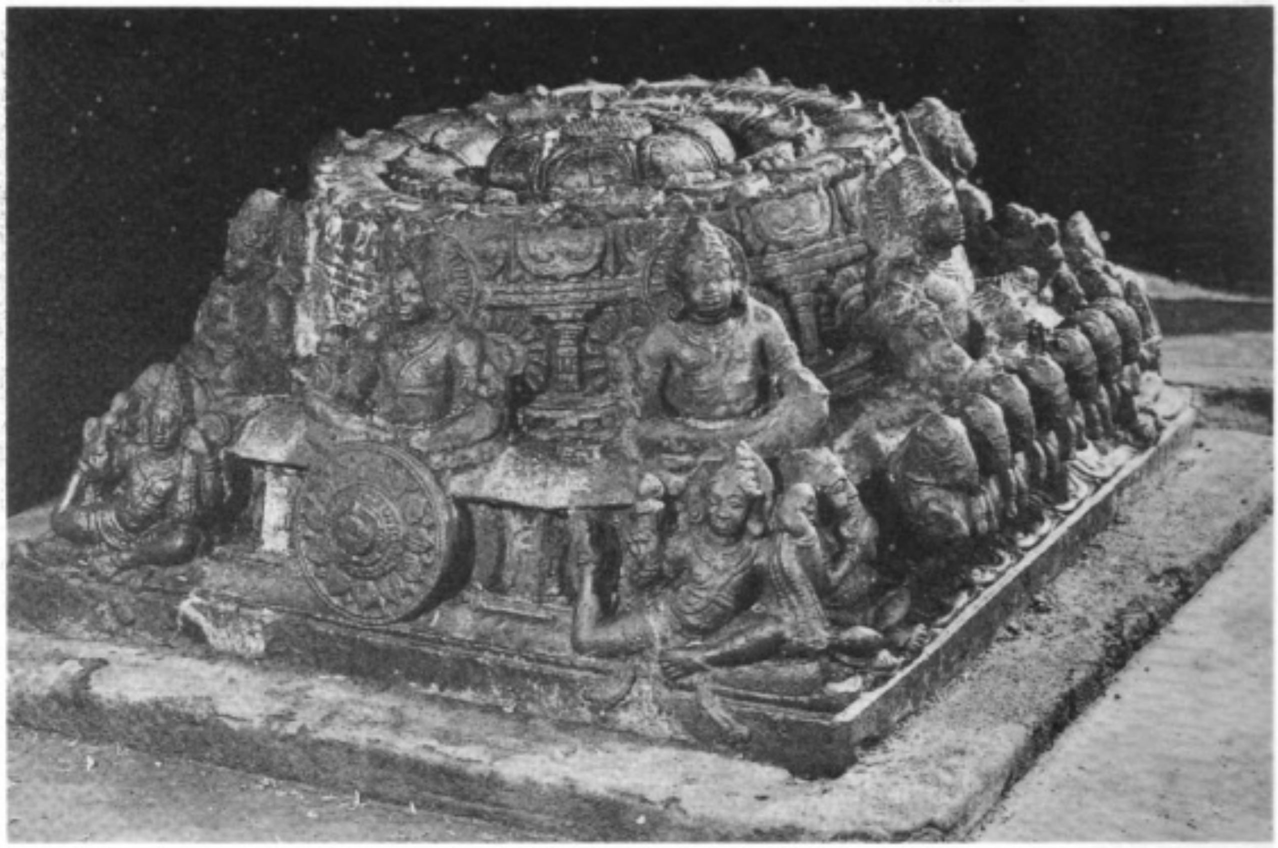




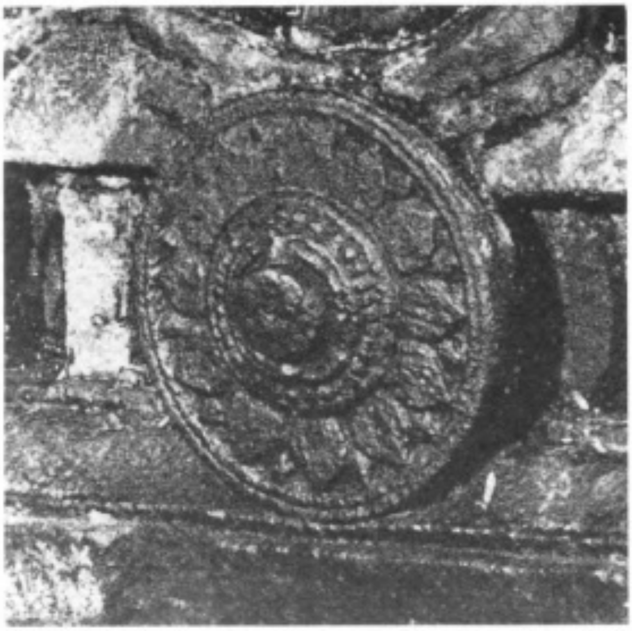
Pl. 32.36. Tanjore Art Gallery (39), one of two stone wheels, in front of main entrance (photo: author)



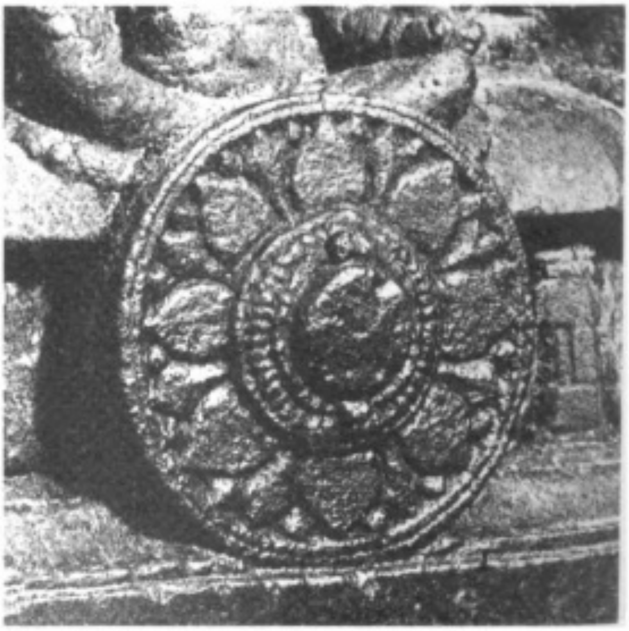
Pl. 32.37. Thiruvellarai (41), Pundarīkāksha temple, northern *gopura*, view from north-east (photo: author)



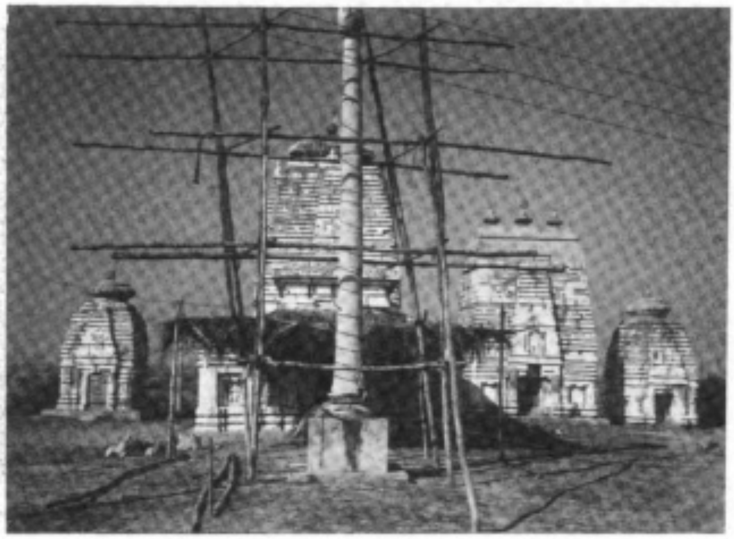
Pl. 32.38. Gangaikondacholapuram, Gaṅgāikoṇḍachoḷīśvara temple, solar *pīṭha* in north-eastern corner of *mahāmaṇḍapa*, (a) general view from north-west (photo courtesy: French Institute, Pondicherry)



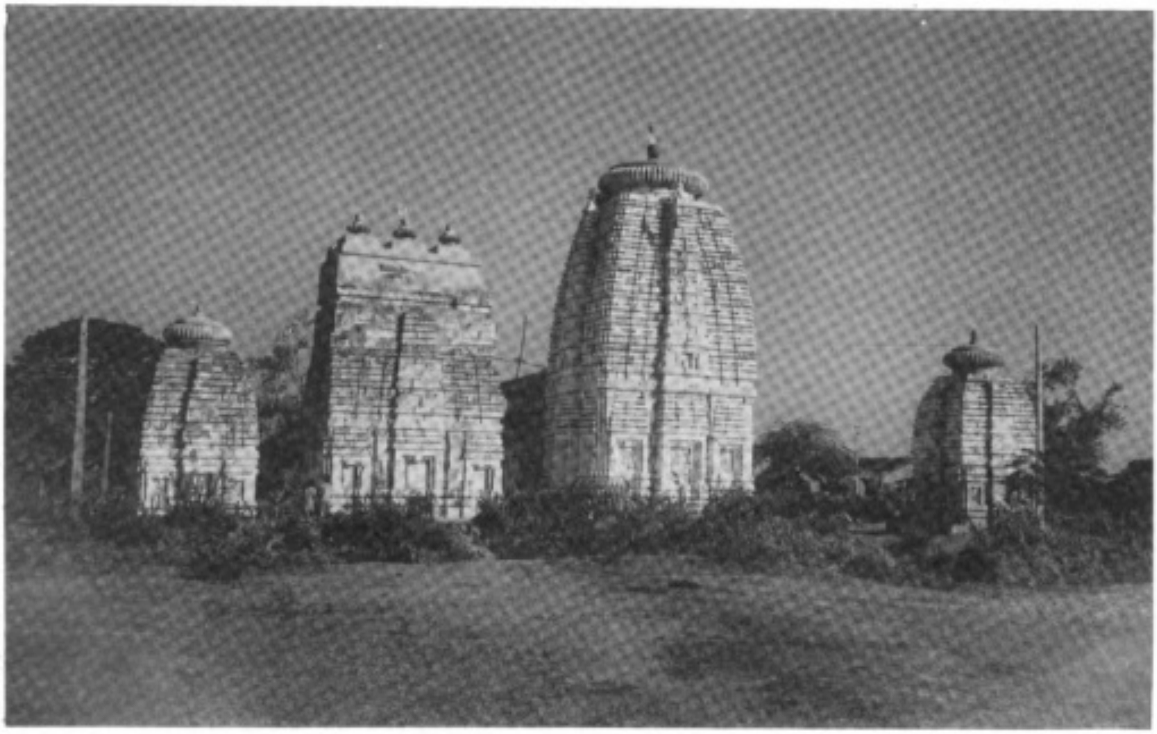
32.38(b). Detail of northern wheel



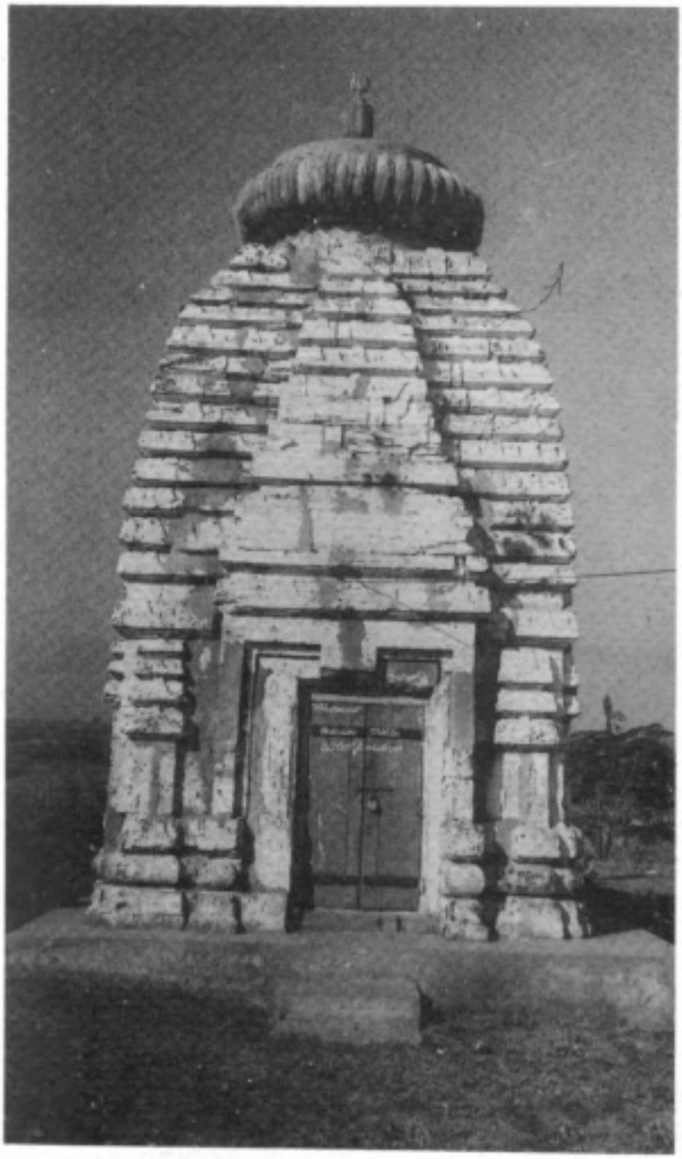
Pl. 32.38(c). Detail of southern wheel



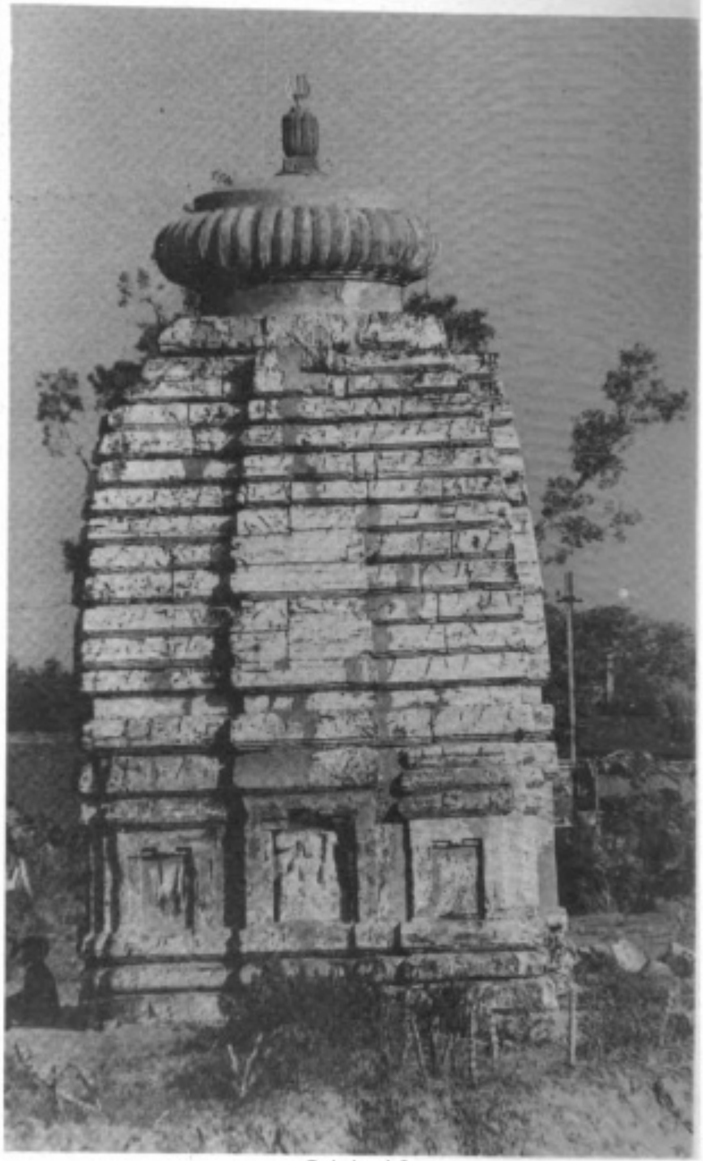
Pl. 33.1. General view (from the east) of the temples at Narayanapuram (photo: author)



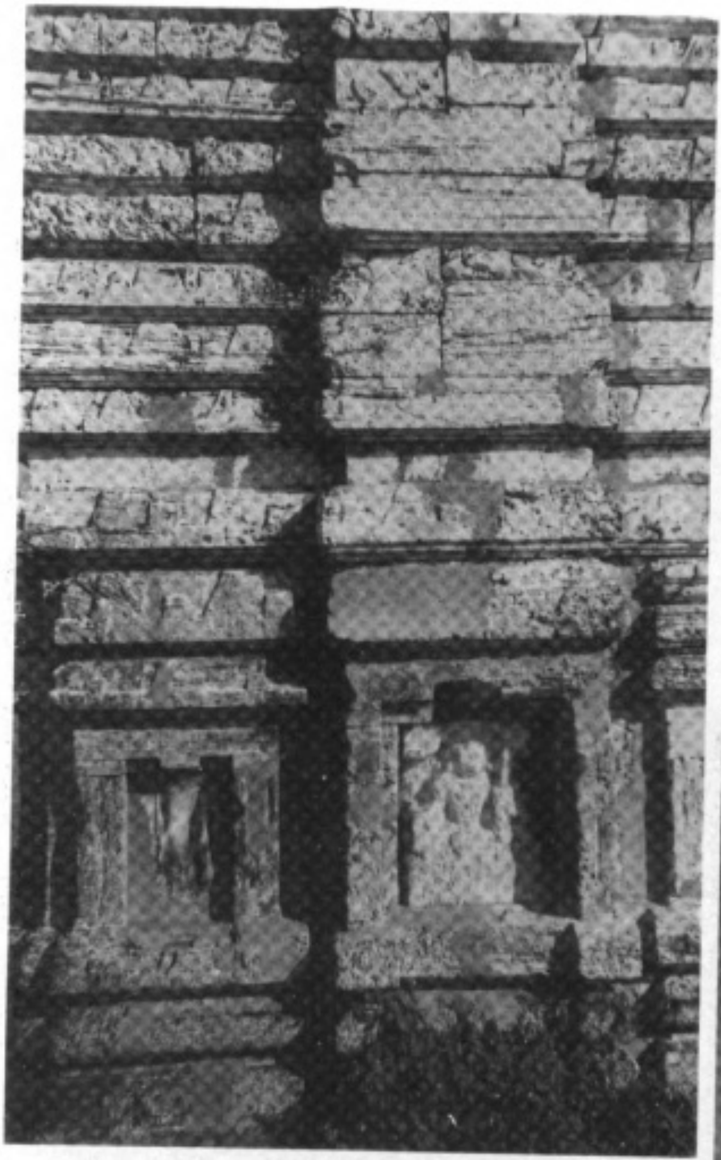
Pl. 33.2. General view (from the west) of the temples at Narayanapuram (photo: author)



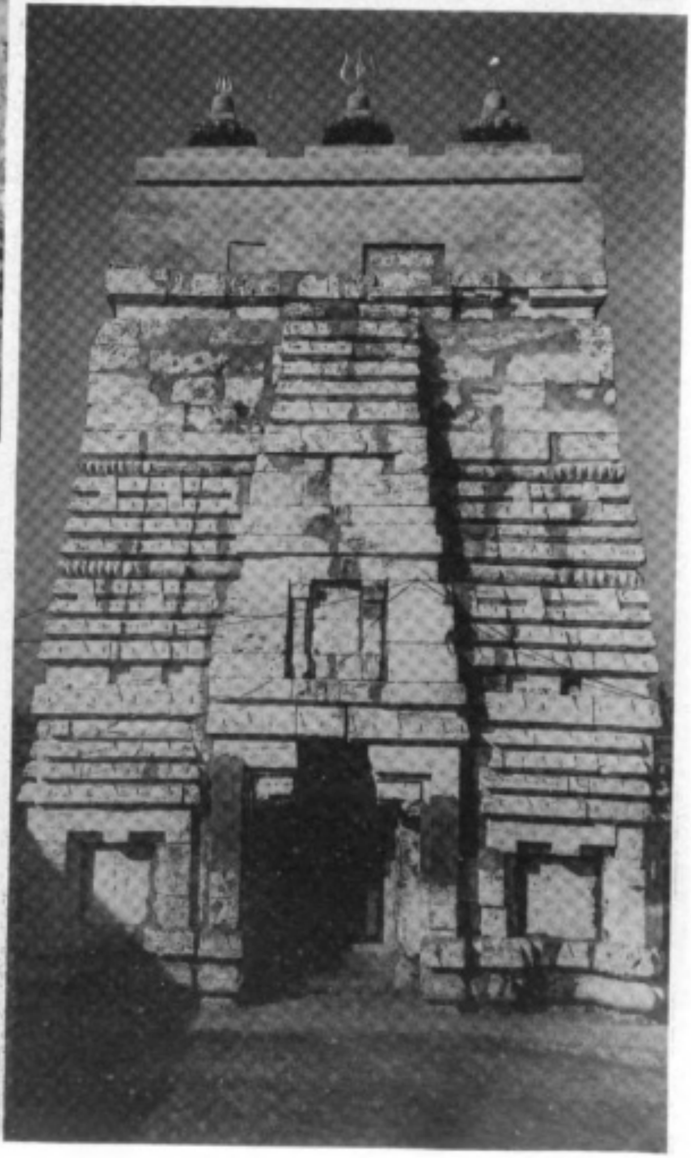
Pl. 33.3. Naleśvara temple, east side (photo: author)



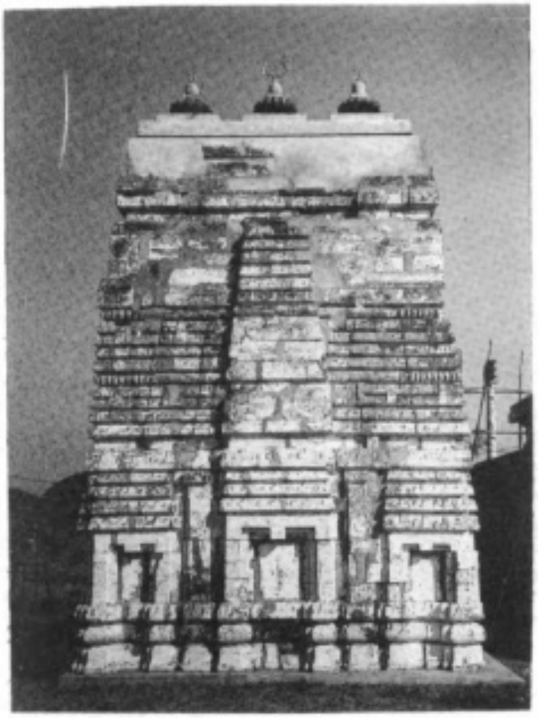
Pl. 33.4. Naleśvara temple, west side (photo: author)



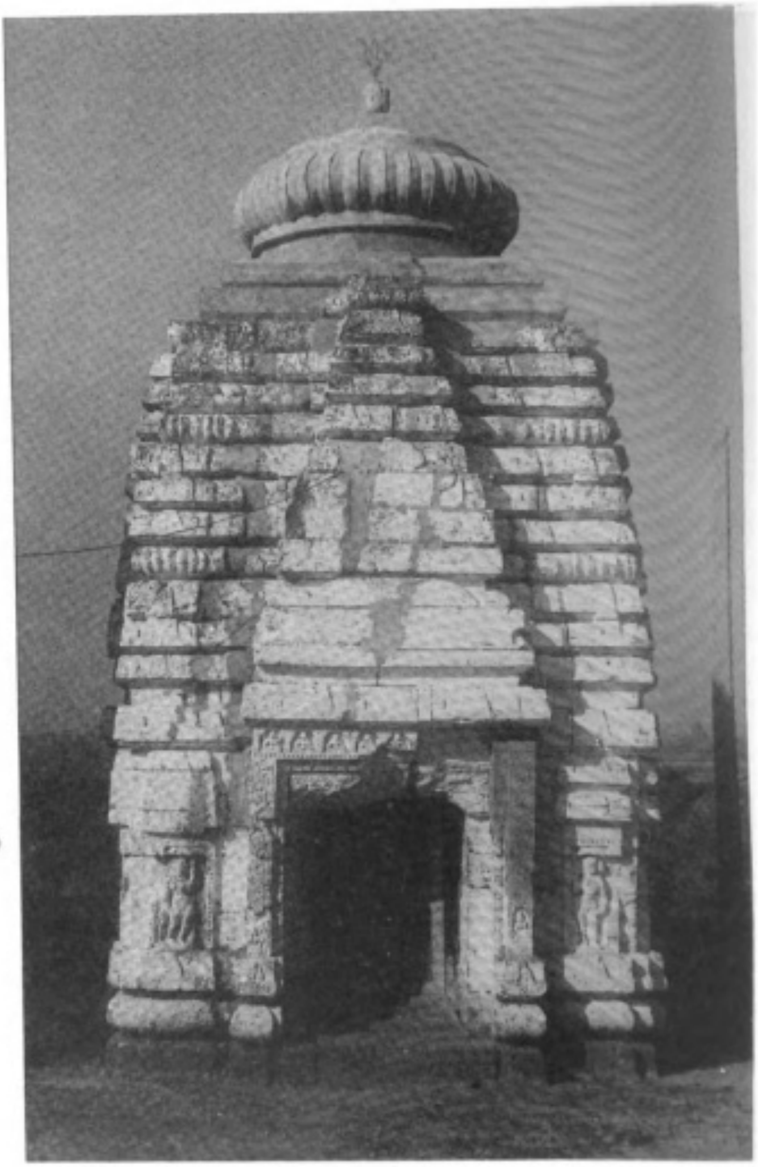
Pl. 33.5. Naleśvara temple, partial view of the *bāḍa*, west side (photo: author)



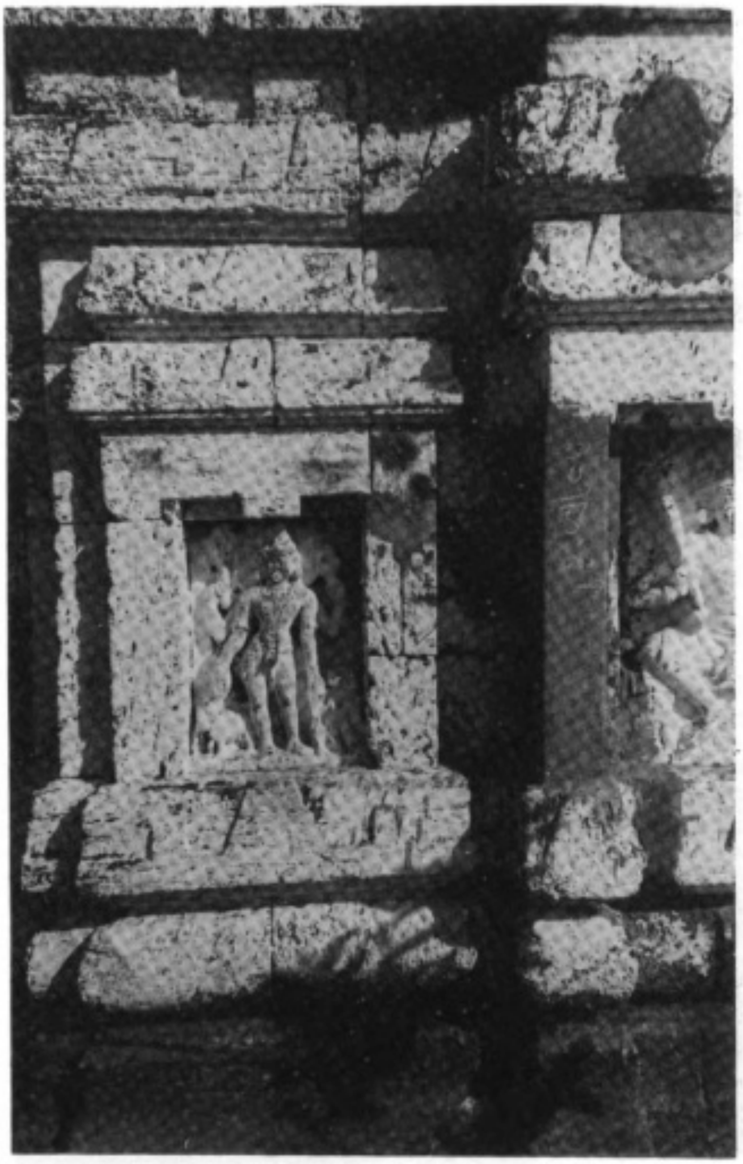
Pl. 33.6. Saṅgameśvara temple, east side (photo: author)



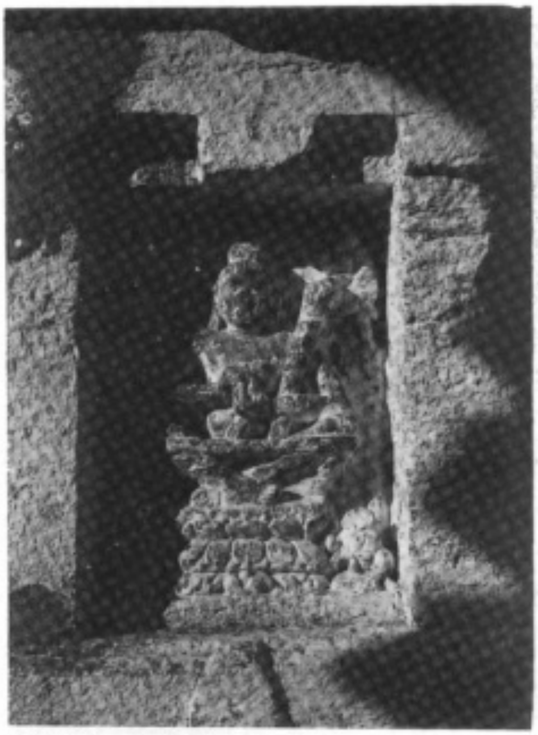
Pl. 33.7. Saṅgameśvara temple, west side (photo: author)



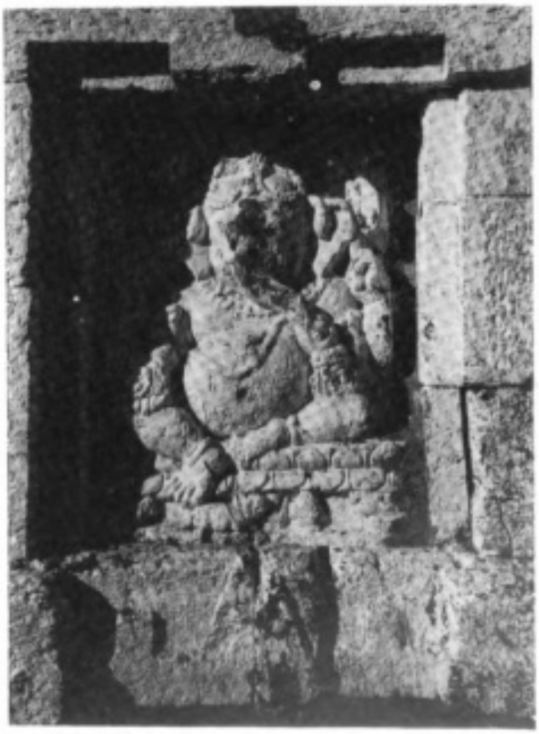
Pl. 33.8. Mallikārjuna temple, east side (photo: author)



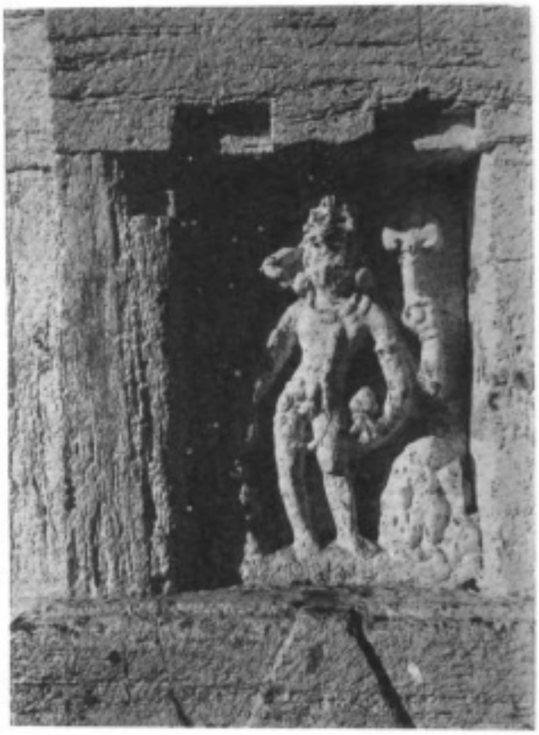
Pl. 33.9. Mallikārjuna temple, partial view of the *bāḍa* and *gaṇḍi* of the west side (photo: author)



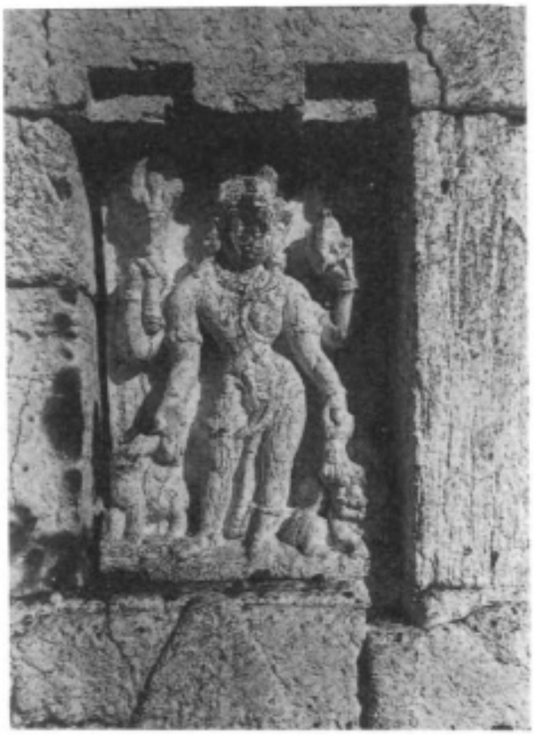
Pl. 33.10. Lakulīśa, Mallikārjuna temple (photo: author)



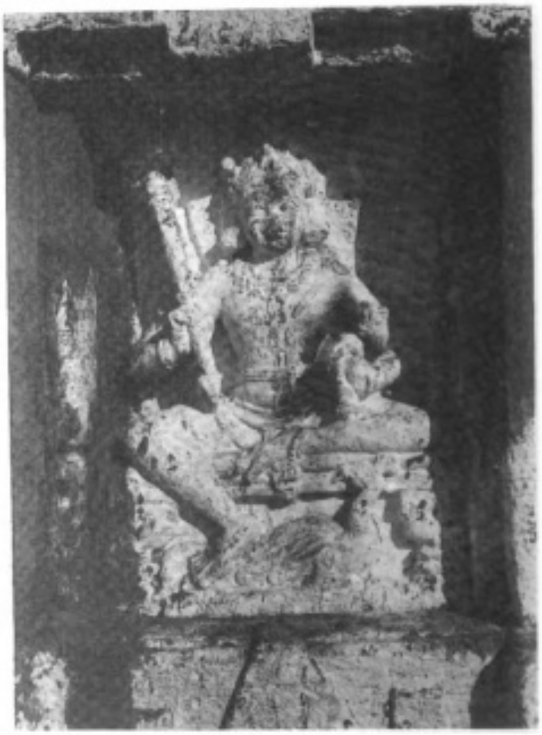
Pl. 33.11. Gaṇeśa, Mallikārjuna temple (photo: author)



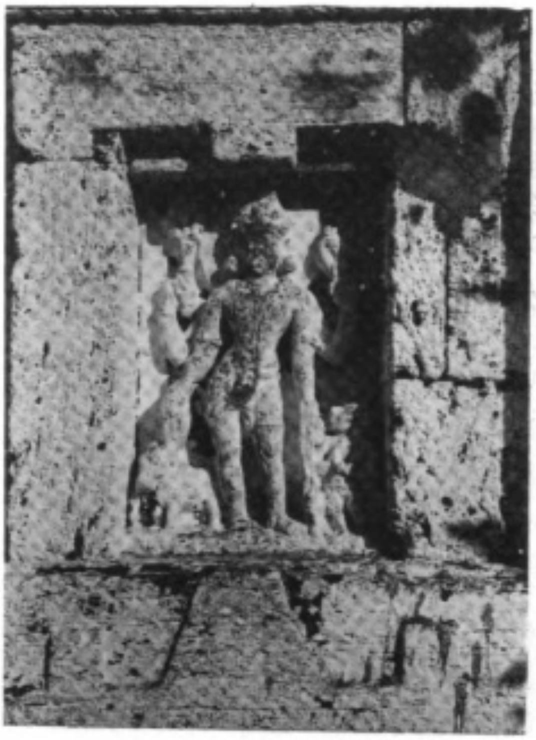
Pl. 33.12. Gaṅgādhara Śiva, Mallikārjuna temple (photo: author)



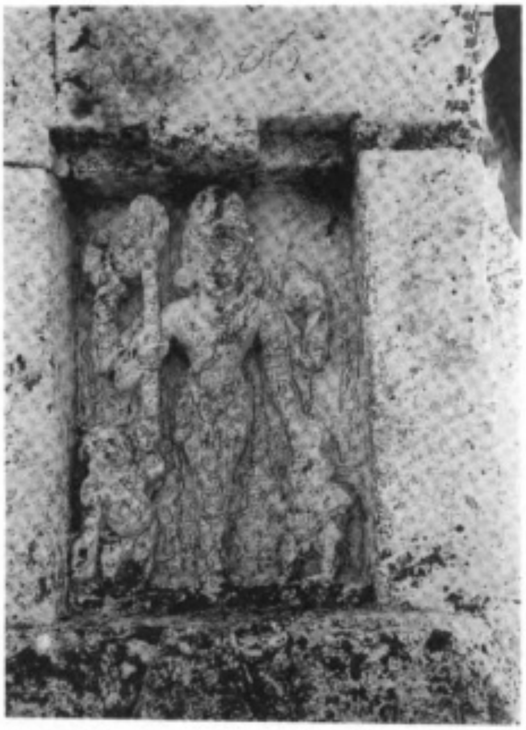
Pl. 33.13. Ardhanārīśvara, Mallikārjuna temple (photo: author)



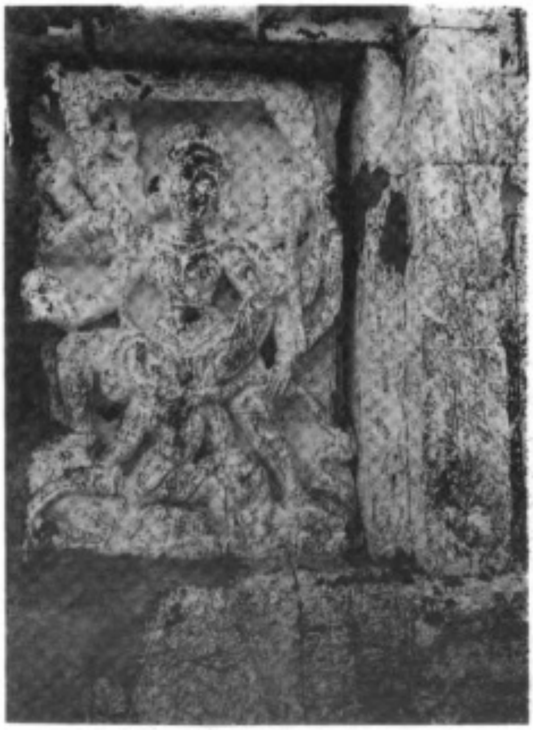
Pl. 33.14. Kārttikeya, Mallikārjuna temple (photo: author)



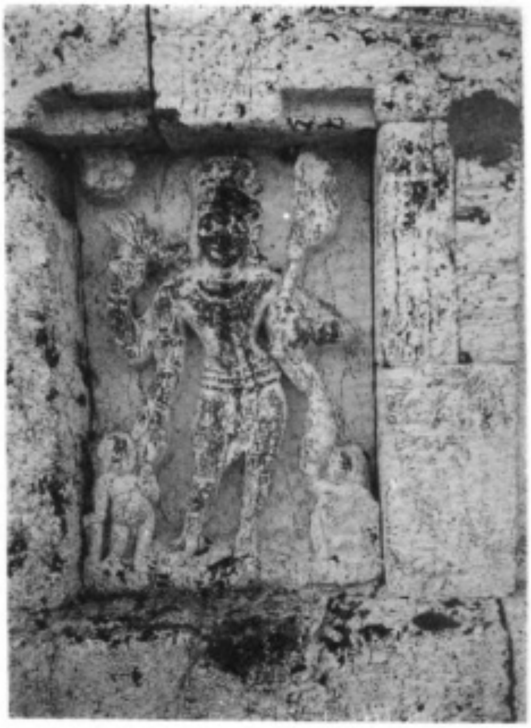
Pl. 33.15. Hari-Hara, Mallikārjuna temple (photo: author)



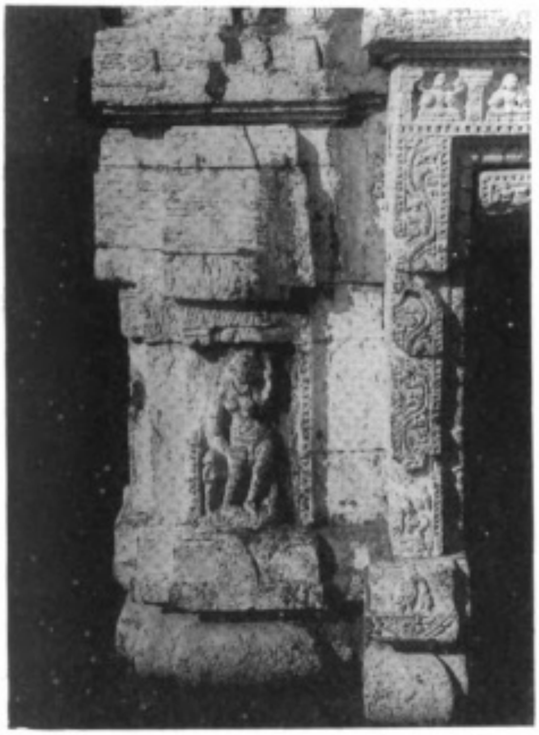
Pl. 33.16. Aja-Ekapāda, Mallikārjuna temple (photo: author)



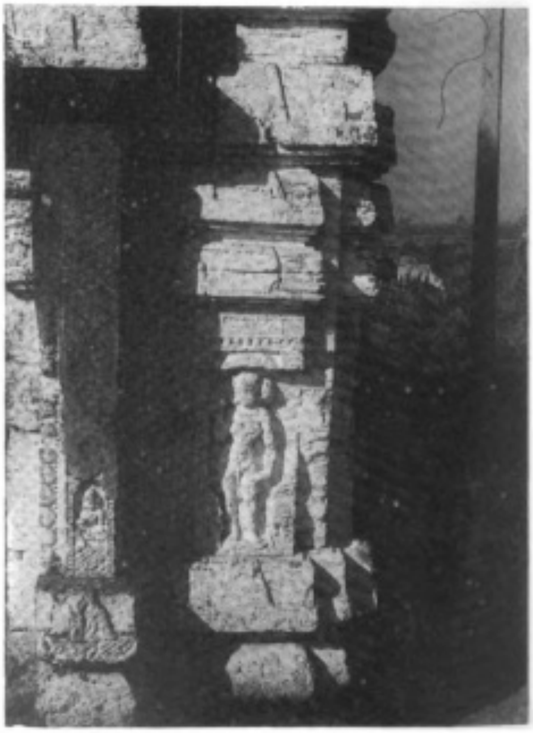
Pl. 33.17. Mahishāsuramardinī, Mallikārjuna temple (photo: author)



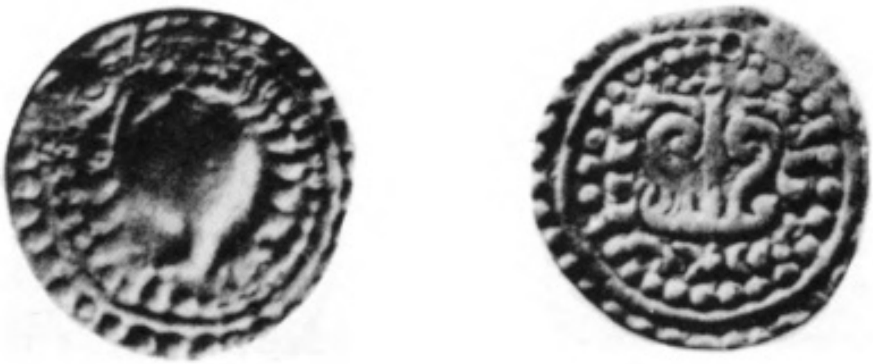
Pl. 33.18. Ugra Śiva, Mallikārjuna temple (photo: author)



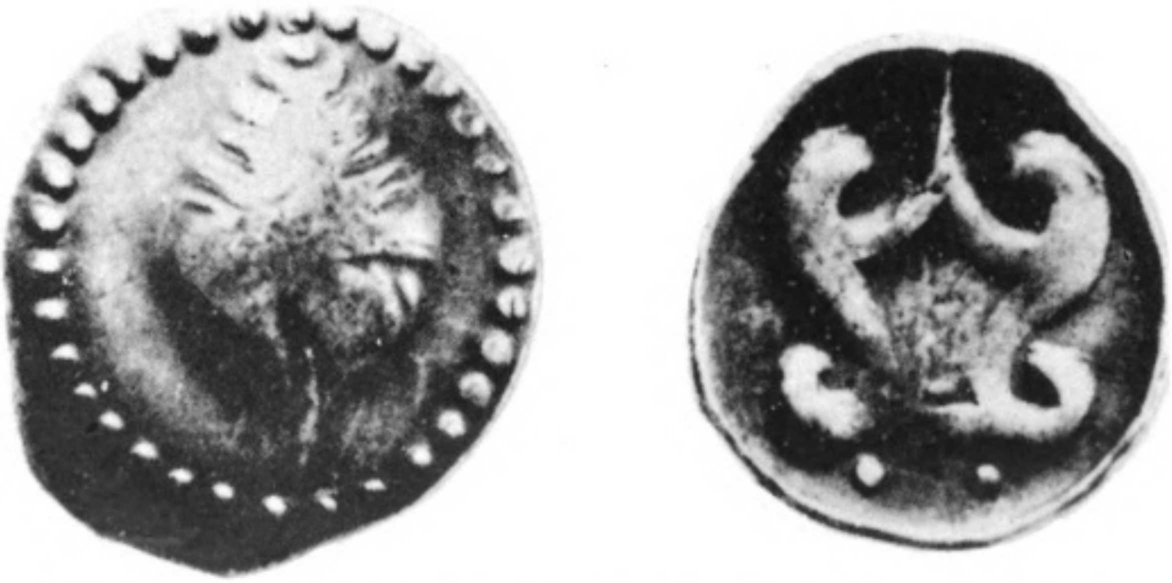
Pl. 33.19. Gaṅgā, Mallikārjuna temple (photo: author)



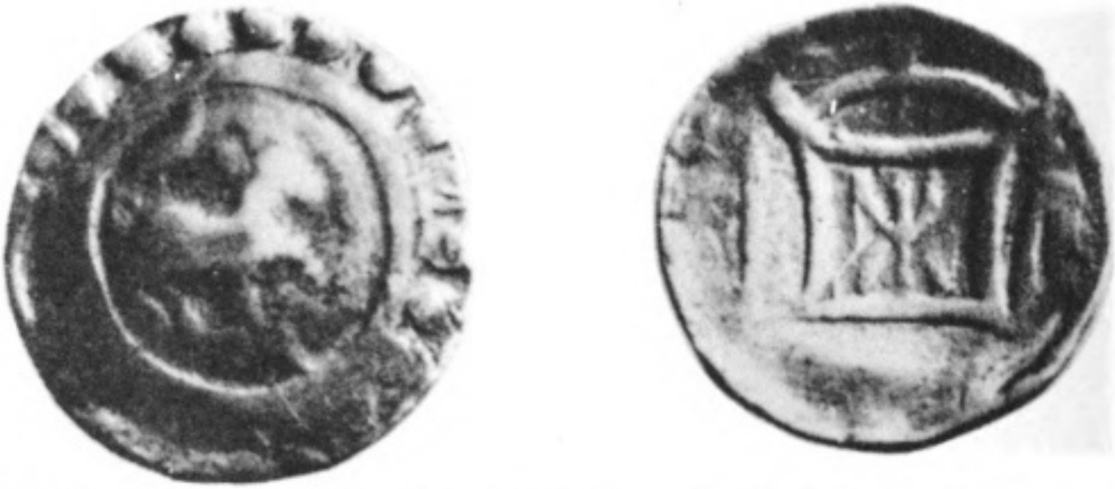
Pl. 33.20. Yamunā, Mallikārjuna temple (photo: author)



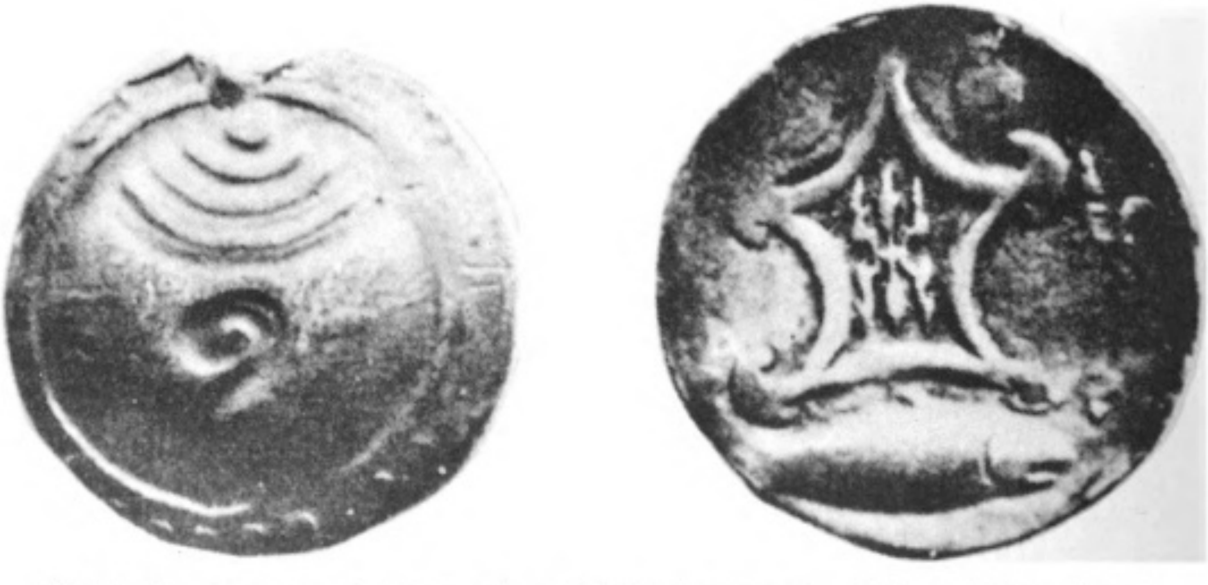
Pl. 34.1. (obverse) & 1a (reverse). Early coin of Arakan: conch on obv. & "tripartite" symbol on rev.



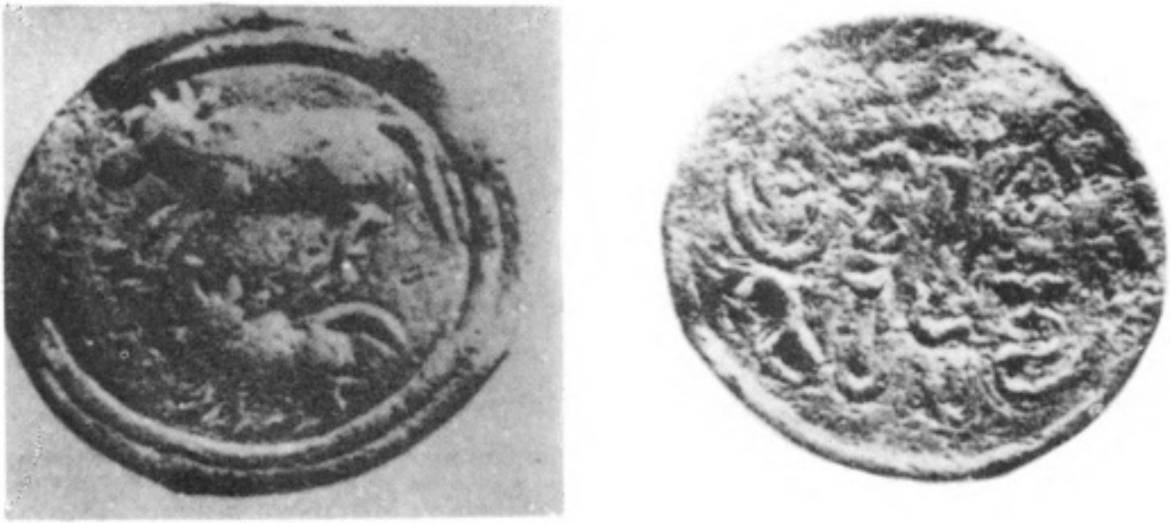
Pl. 34.2 (obv.) & 2a (rev.) Pre-Dvārāvatī coin of Thailand: conch on obv. & the so-called "temple" on rev.



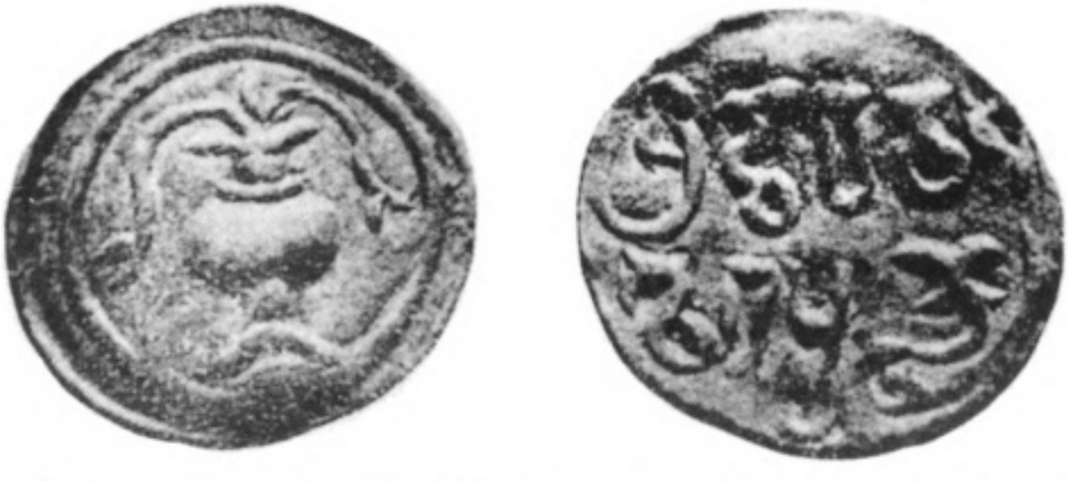
Pl. 34.3 (obv.) 3a (rev.). Pre-Dvārāvatī coin of Thailand: horse (?) on obv. & the so-called "temple" on rev.



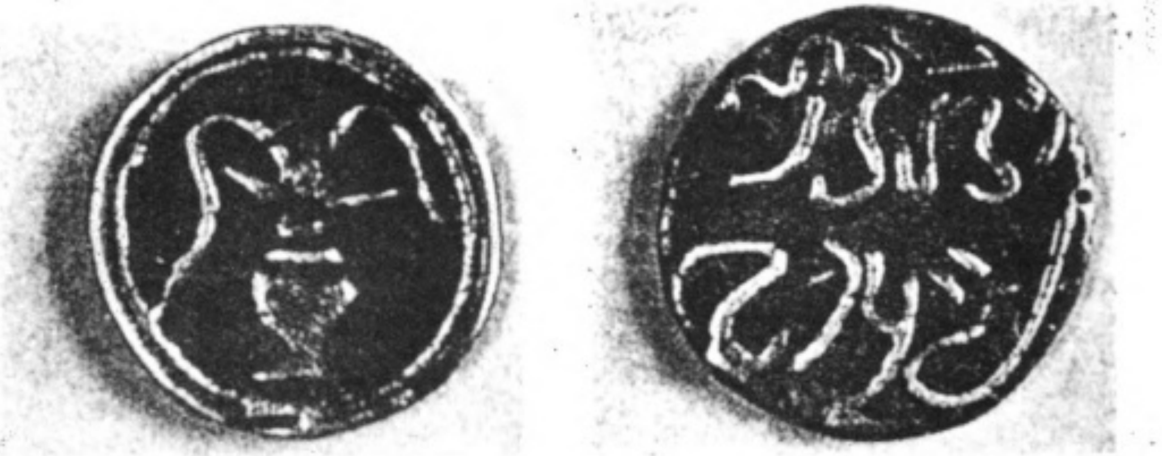
Pl. 34.4 (obv.) & 4a (rev.). Pre-Dvārāvatī coin of Thailand: conch on obv. & the so-called "temple" with the sun and the moon symbols above and a fish below on rev.



Pl. 34.5 (obv.) & 5a (rev.). Coin of the Dvārāvatī kingdom: a cow and a calf on obv. & legend on rev.



Pl. 34.6 (obv.) & 6a (rev.). Coin of the Dvārāvatī kingdom: *pūrṇa-kumbha* on obv. & legend on rev.

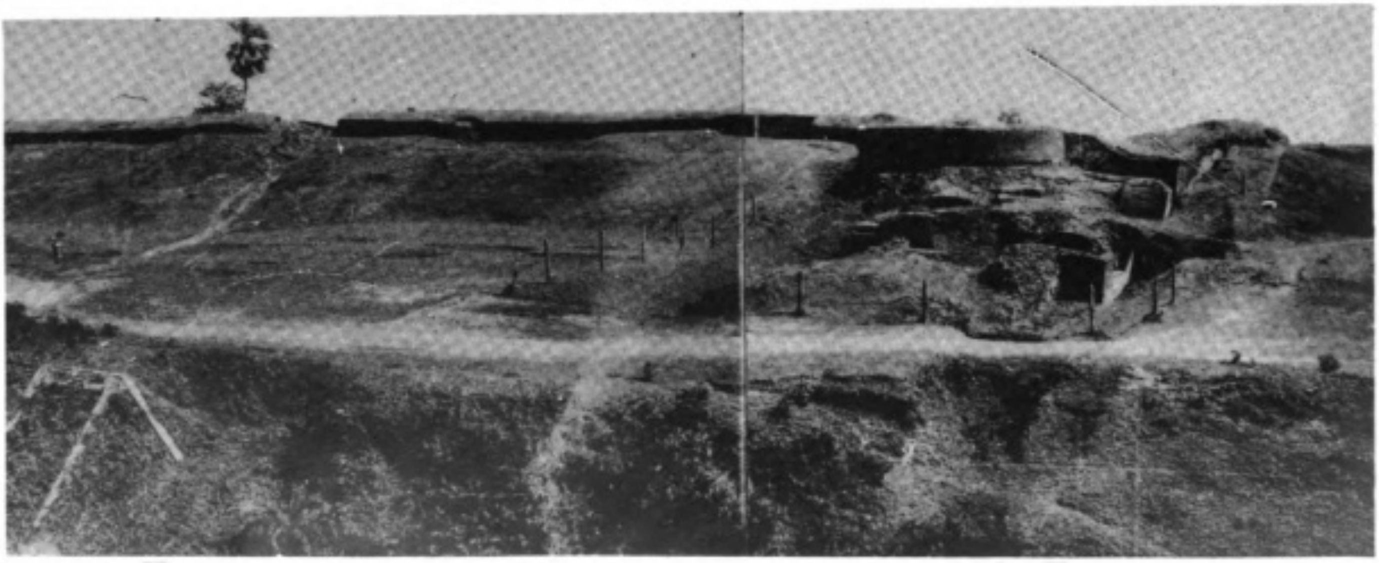


Pl. 34.7 (obv.) & 7a (rev.). Coin of the Dvārāvatī kingdom: *pūrṇa-kumbha* on obv. & legend on rev.

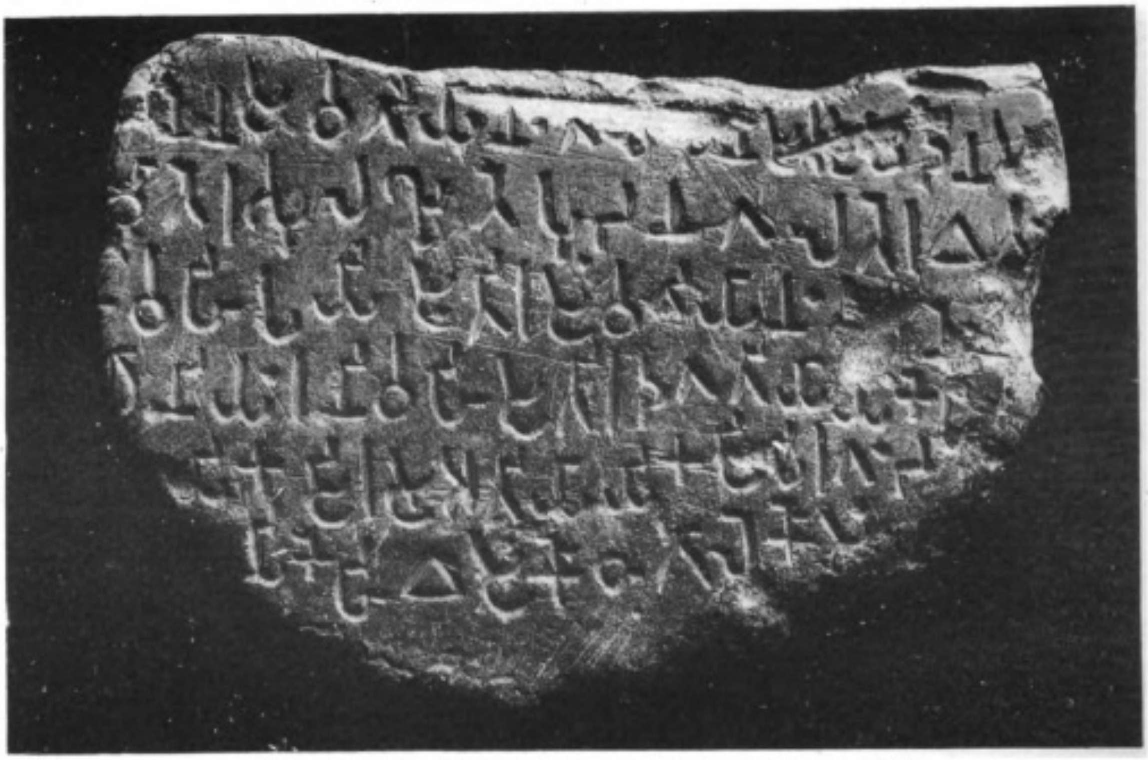
Pl. 34.8. Terracotta figure unearthed at Ku Bua, Thailand

Pl. 34.9. Figure on the north wall of a temple at Sambor Prei Kuk. Cambodia

Pl. 35.1. Mound of Mahasthangarh, Bangladesh (copyright: Directorate of Archaeology and Museums, Bangladesh)

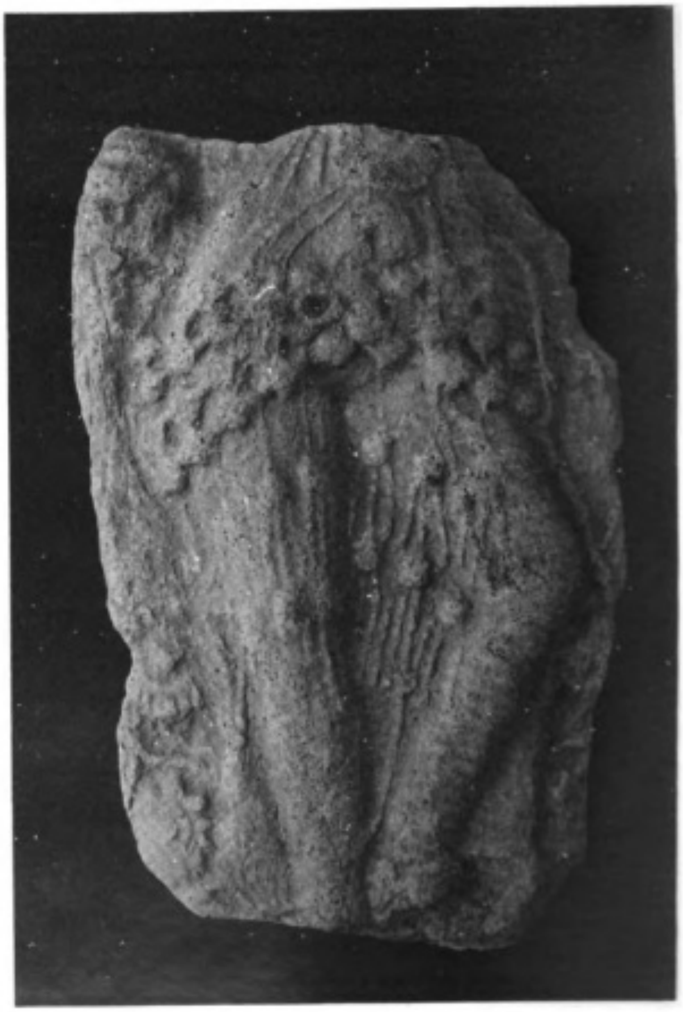


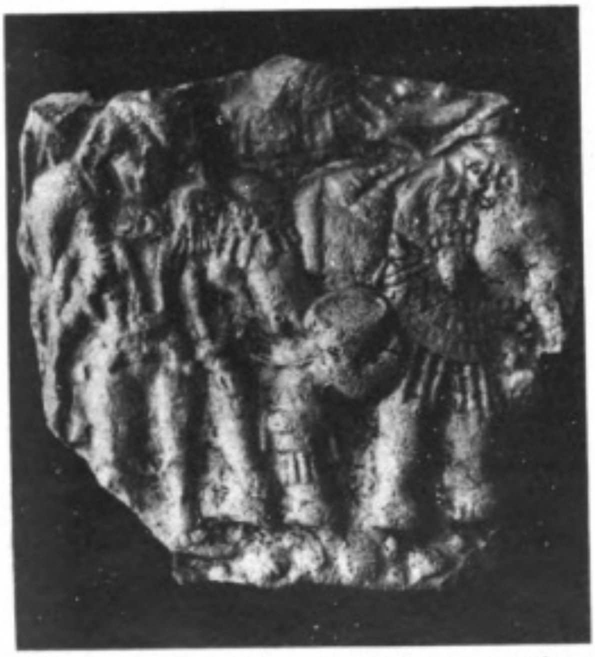
Pl. 35.2. Fortification-wall of Mahasthangarh, partly excavated in 1960-61 (copyright: Directorate of Archaeology and Museums, Bangladesh)



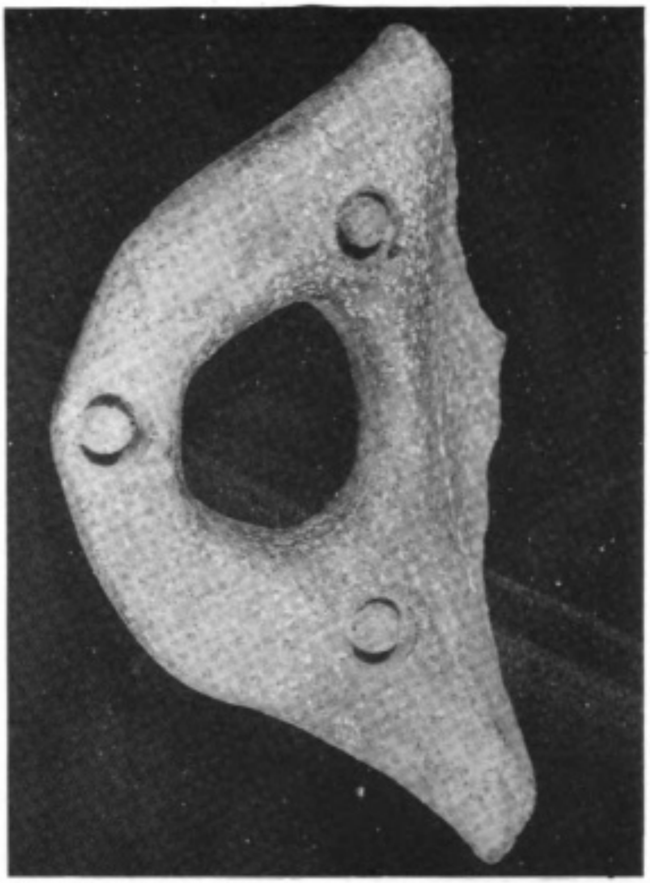
Pl. 35.3. Fragmentary inscribed slab, Mahasthan, now in the Indian Museum, Calcutta (copyright: Indian Museum, Calcutta)

Pl. 35.4. Fragment of a terracotta plaque showing the lower part of a female wearing a profusely-decorated girdle, Mahasthangarh (copyright: Directorate of Archaeology and Museums, Bangladesh)

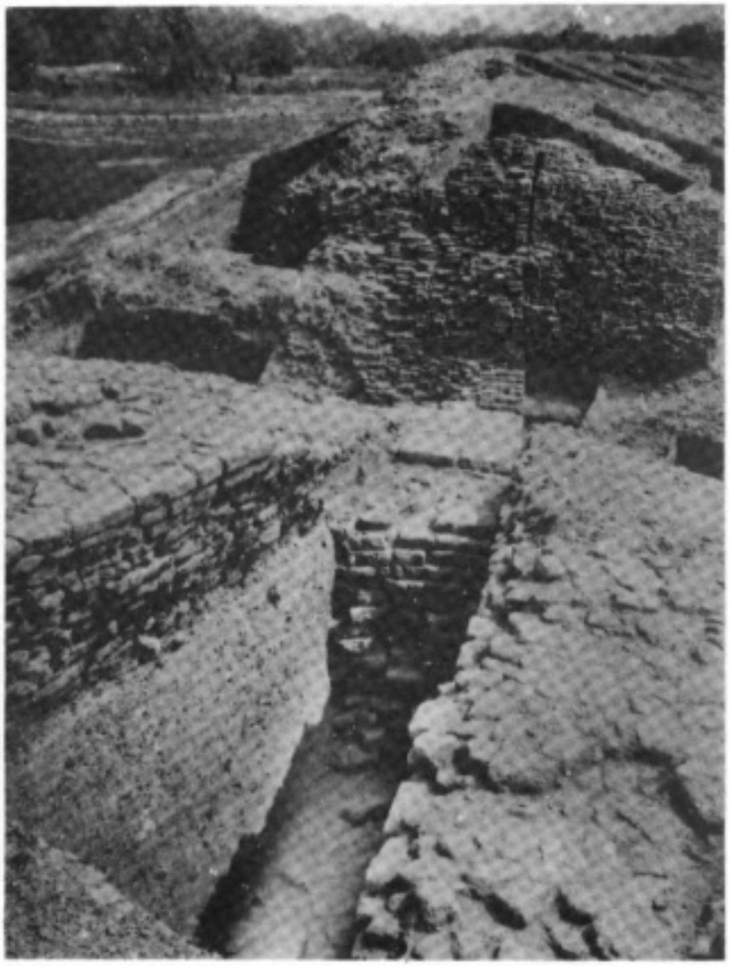




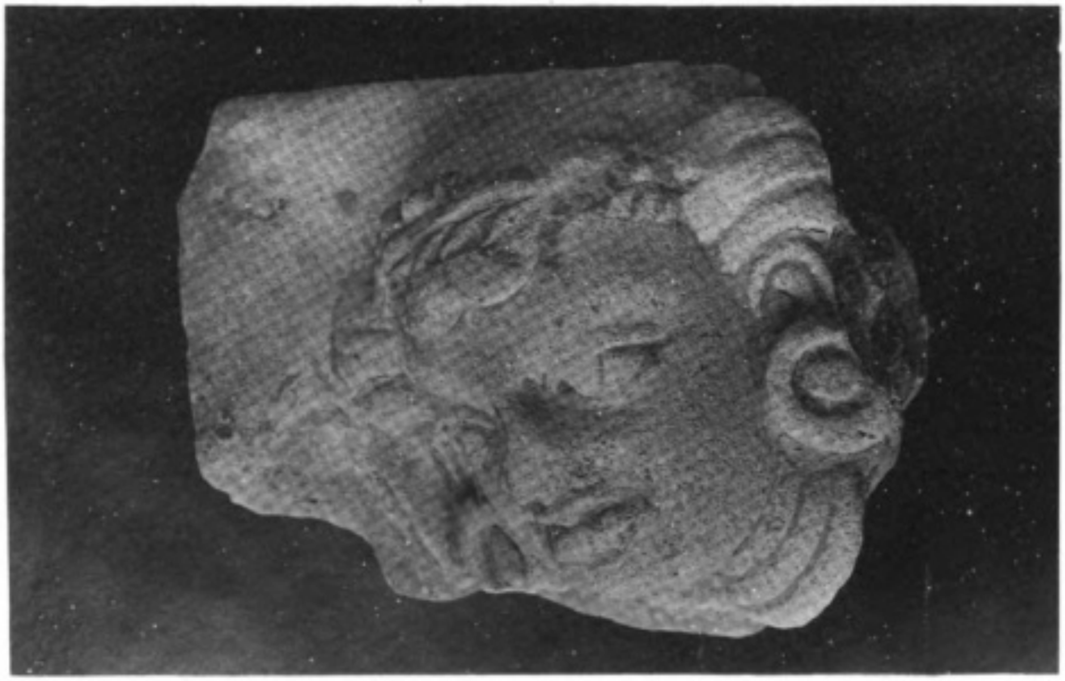
Pl. 35.5. Fragment of a terracotta plaque preserving richly-caparisoned elephants and a *chāmara*-bearer, Mahasthangarh (copyright: Bangladesh National Museum)



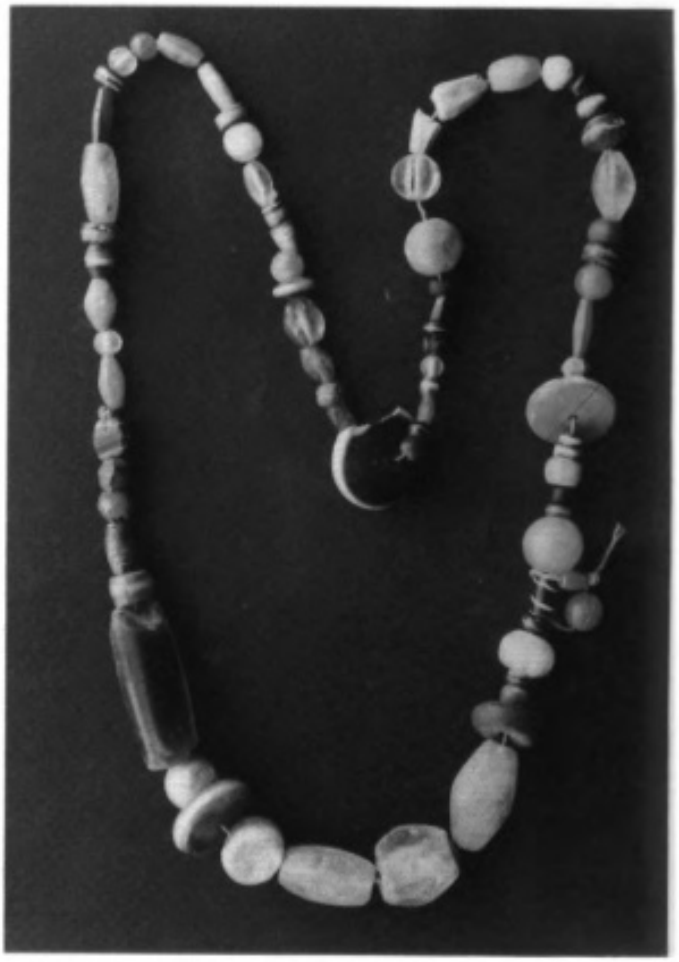
Pl. 35.6. Handle of a shallow cooking pan of earthenware, Mahasthangarh (copyright: Directorate of Archaeology and Museums, Bangladesh)



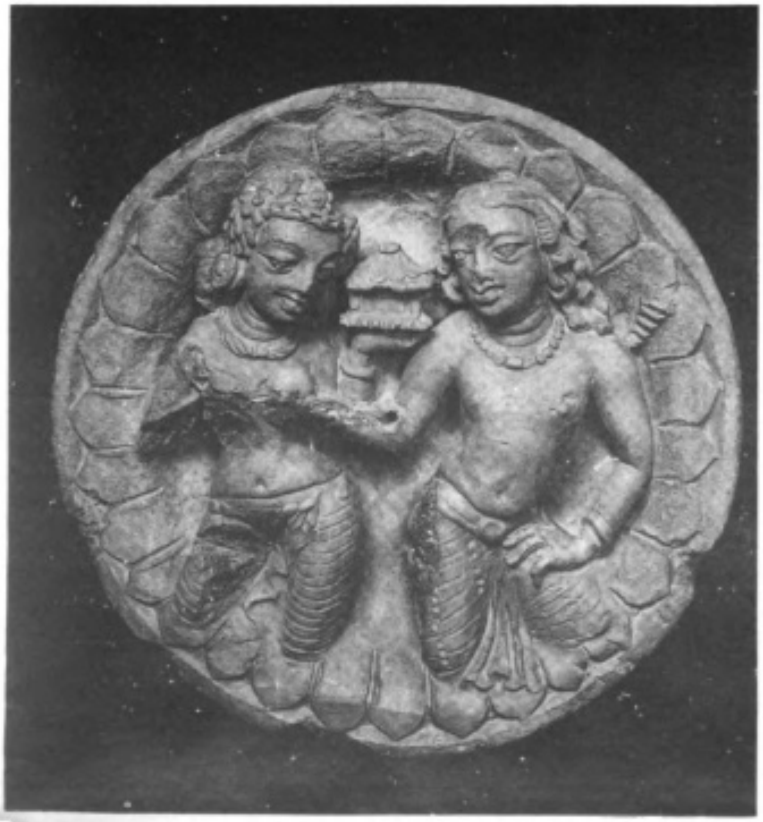
Pl. 35.7. Citadel-wall showing different structural phases, Mahasthangarh (copyright: Directorate of Archaeology and Museums, Bangladesh)



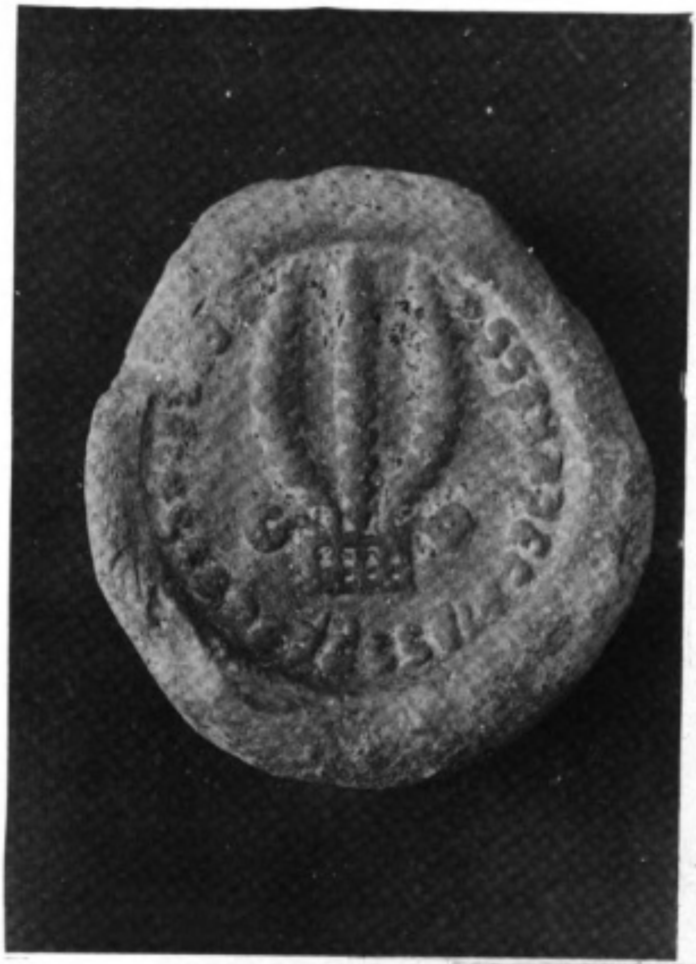
Pl. 35.8. Fragment of a terracotta plaque preserving a head of the Gupta style, Mahasthangarh (copyright: Directorate of Archaeology and Museums, Bangladesh)



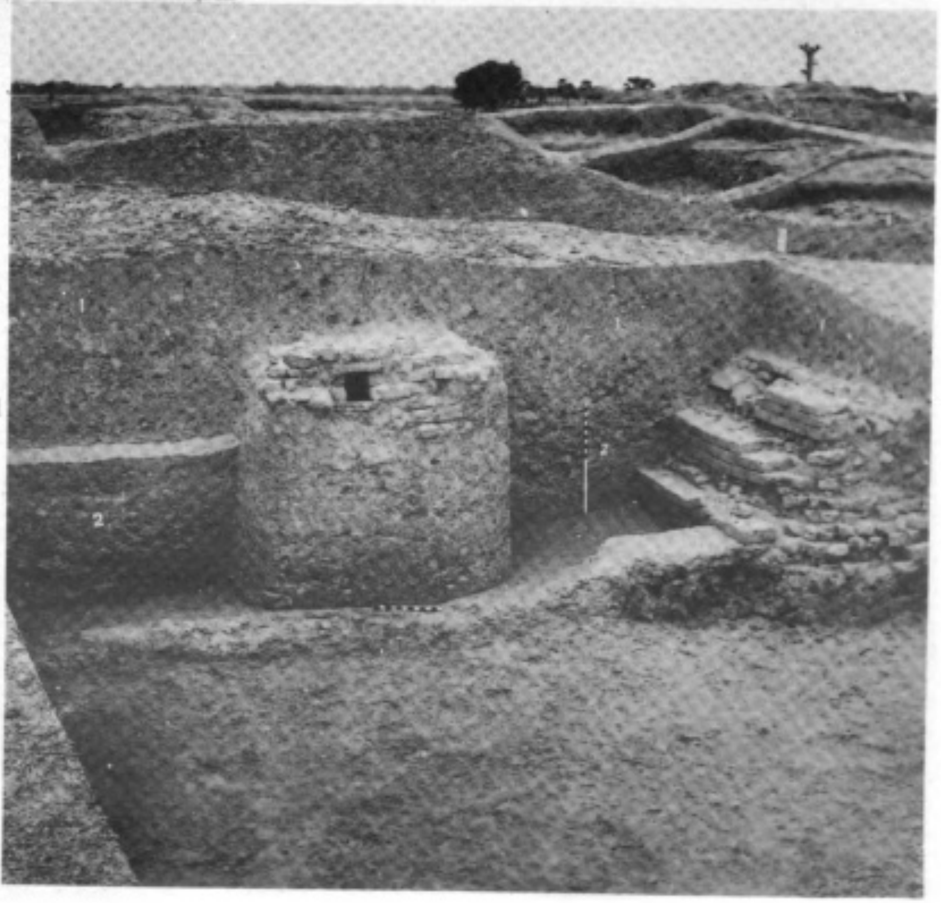
Pl. 35.9. Beads of semiprecious stones, Mahasthangarh (copyright: Directorate of Archaeology and Museums, Bangladesh)



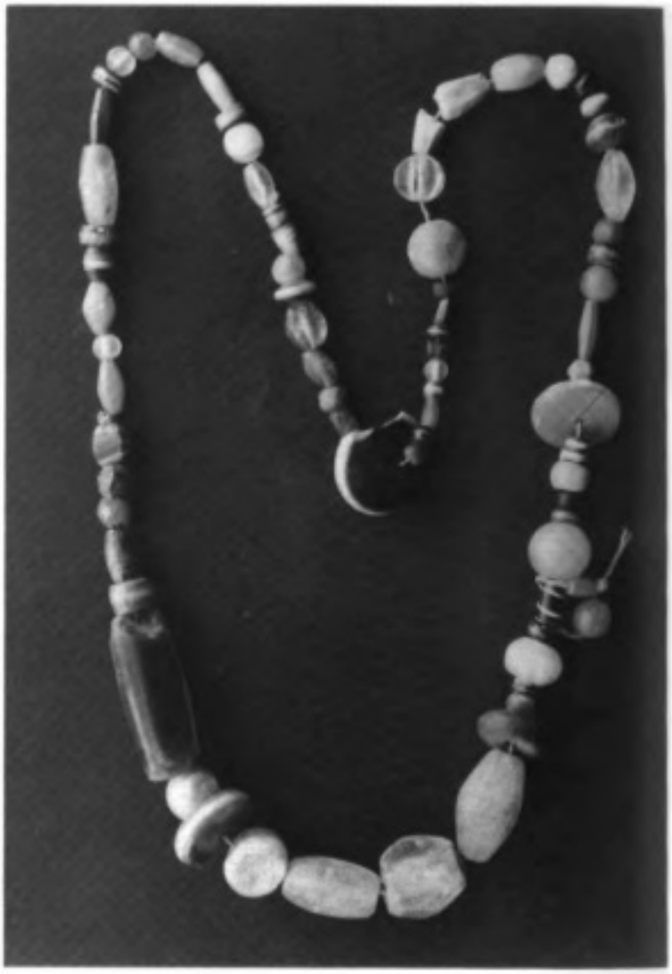
Pl. 35.10. Terracotta lotus-medallion with an amorous couple, Govinda Bhiṭā, Mahasthan, now in the Indian Museum, Calcutta (copyright: Indian Museum, Calcutta)



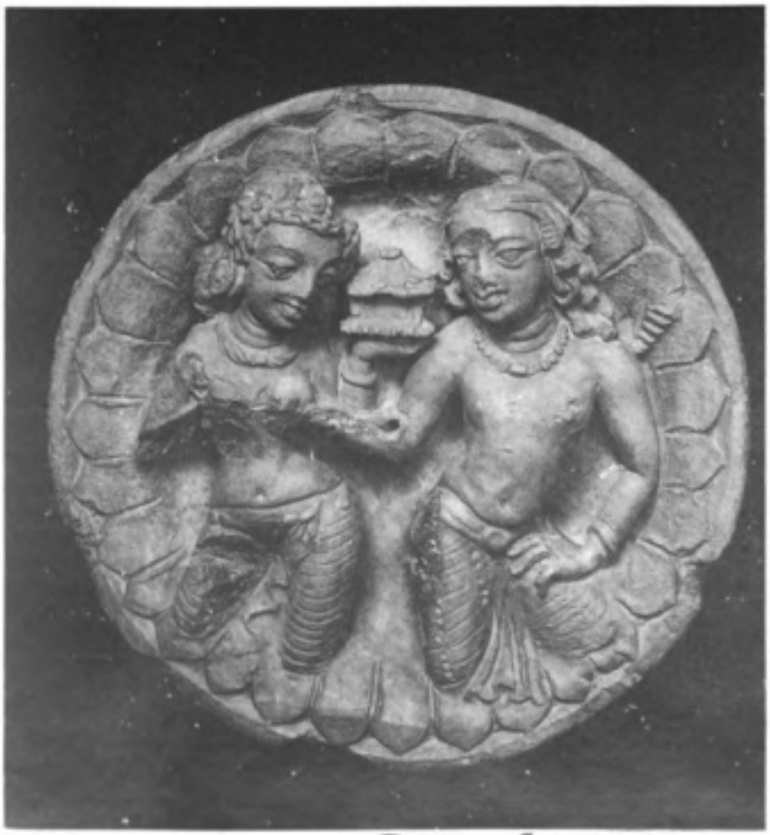
Pl. 35.11. Inscribed clay sealing, Govinda Bhiṭā, Mahasthan (copyright: Directorate of Archaeology and Museums, Bangladesh)



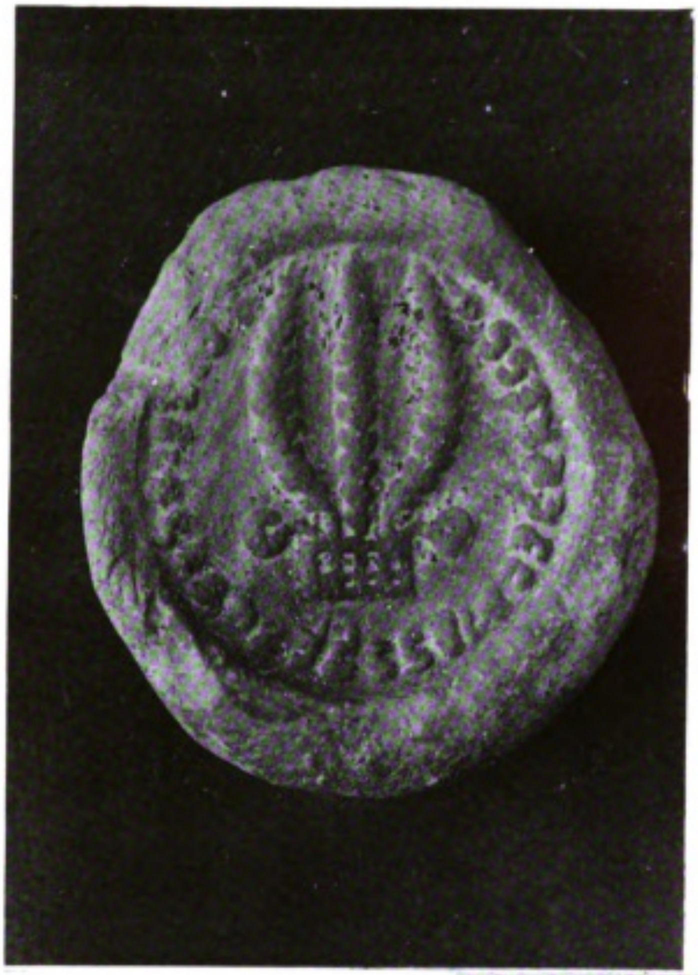
Pl. 35.12. A part of the partly-excavated monastery of Vasu-bihar (copyright: Directorate of Archaeology and Museums, Bangladesh)



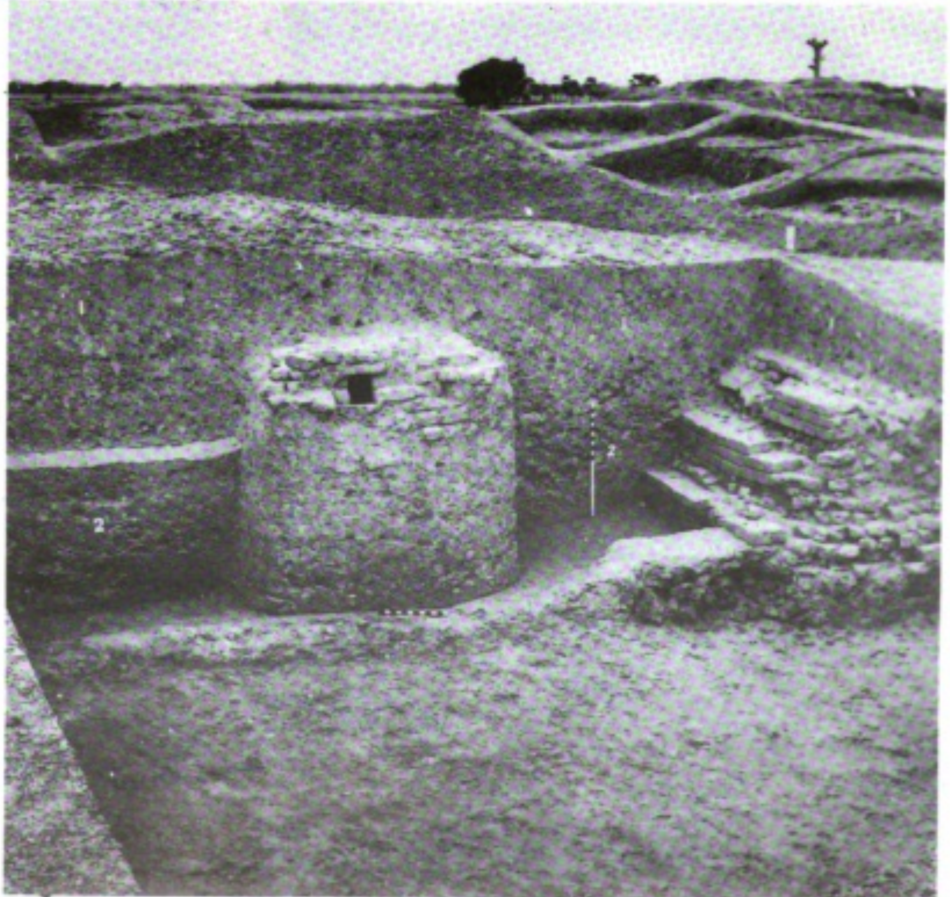
Pl. 35.9. Beads of semiprecious stones, Mahasthangarh (copyright: Directorate of Archaeology and Museums, Bangladesh)



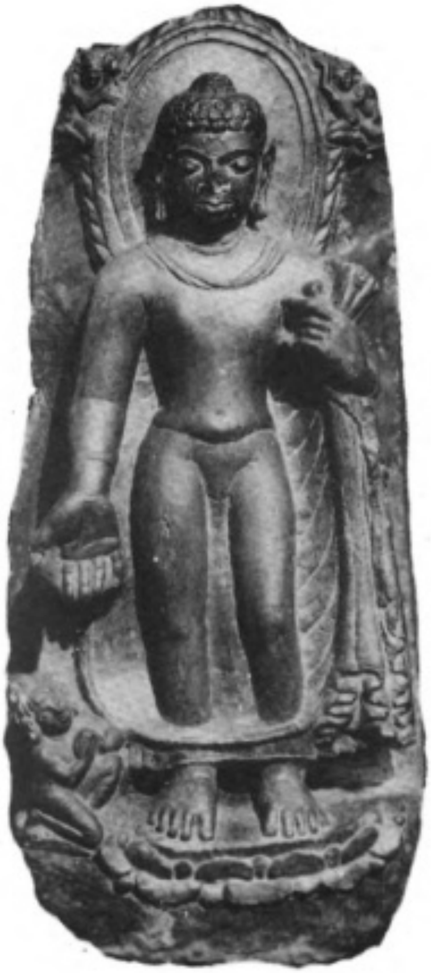
Pl. 35.10. Terracotta lotus-medallion with an amorous couple, Govinda Bhiṭā, Mahasthan, now in the Indian Museum, Calcutta (copyright: Indian Museum, Calcutta)



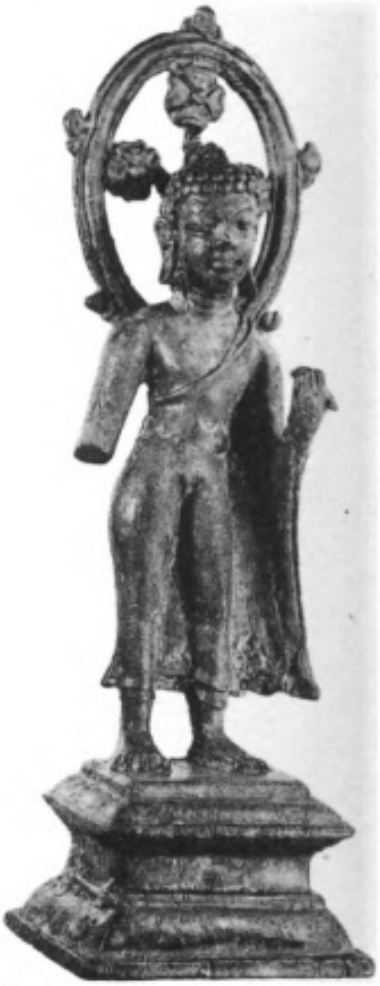
Pl. 35.11. Inscribed clay sealing, Govinda Bhiṭā, Mahasthan (copyright: Directorate of Archaeology and Museums, Bangladesh)



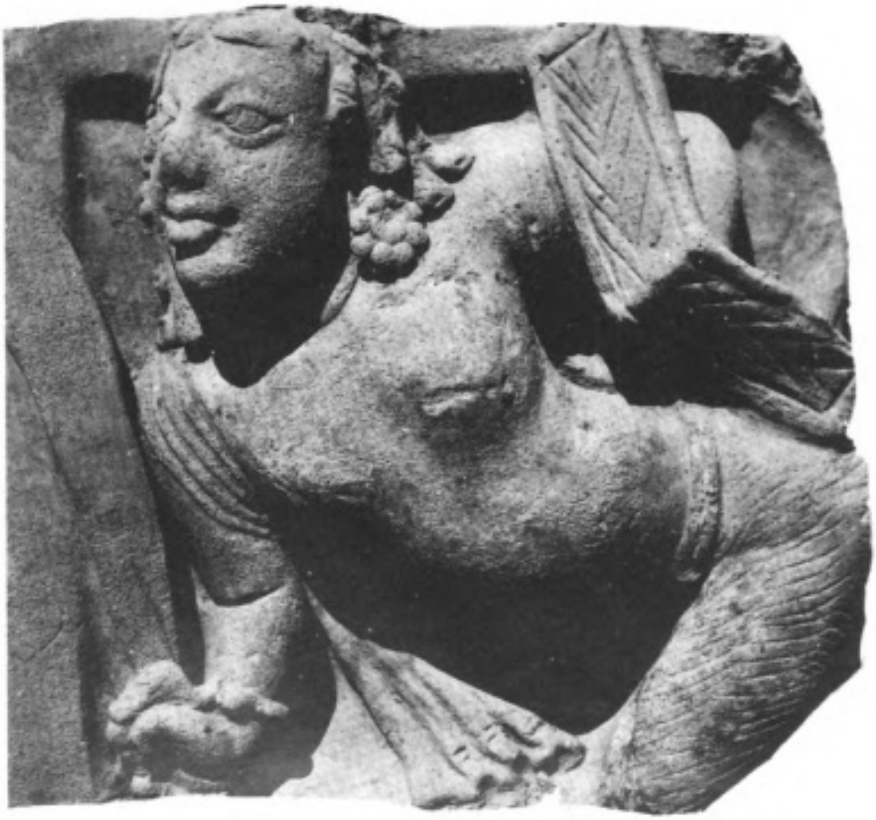
Pl. 35.12. A part of the partly-excavated monastery of Vasu-bihar (copyright: Directorate of Archaeology and Museums, Bangladesh)



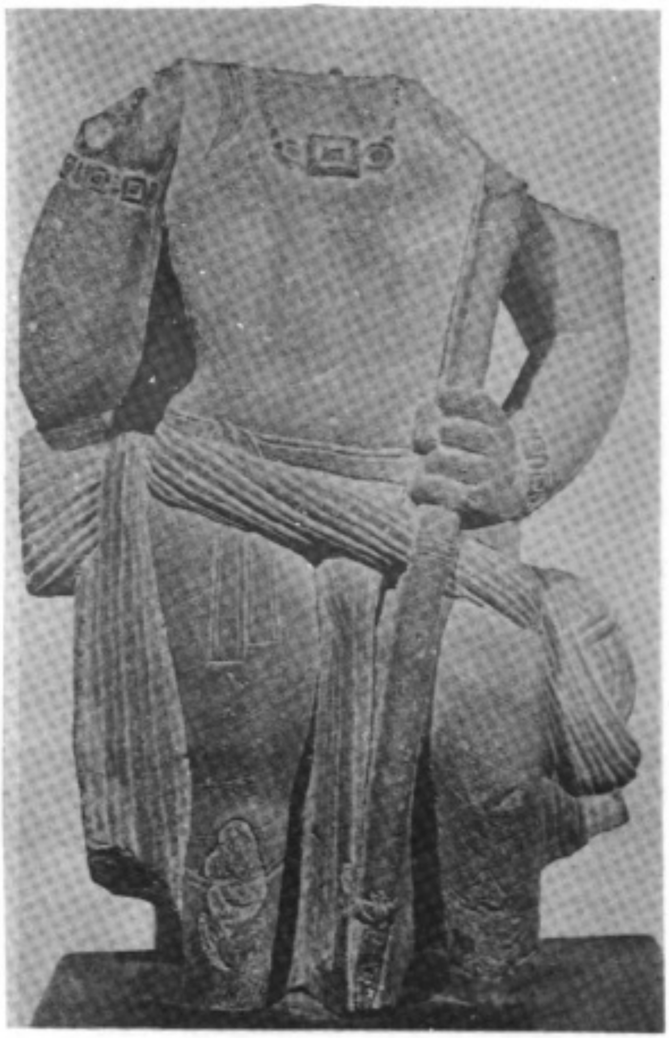
Pl. 35.13. Sandstone standing image of Buddha, Vasu-bihar (copyright: Directorate of Archaeology and Museums, Bangladesh)



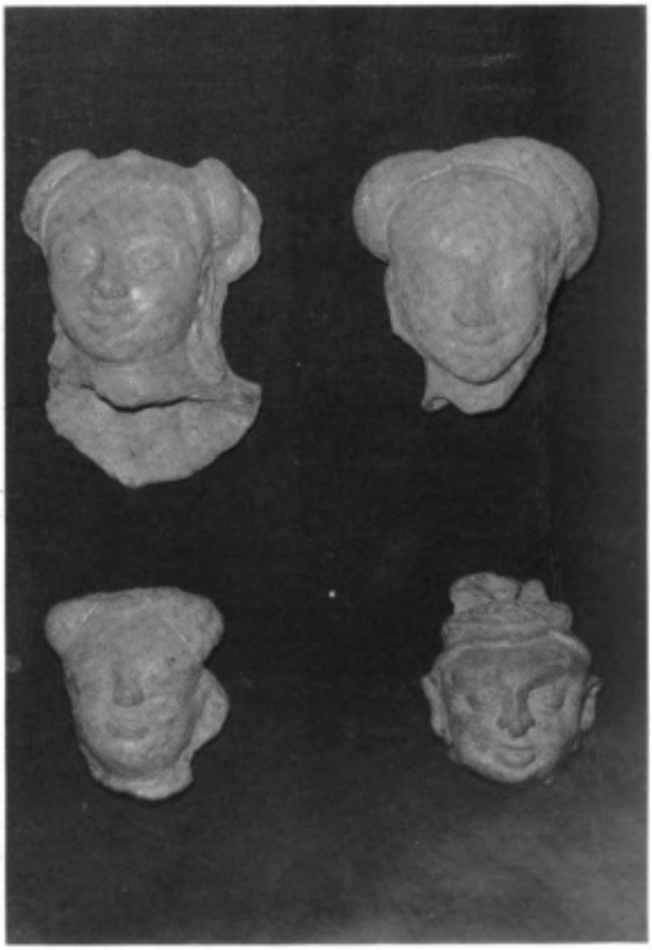
Pl. 35.14. Bronze standing image of Buddha, Vasu-bihar, now in Mahasthangarh Museum (copyright: Directorate of Archaeology and Museums, Bangladesh)



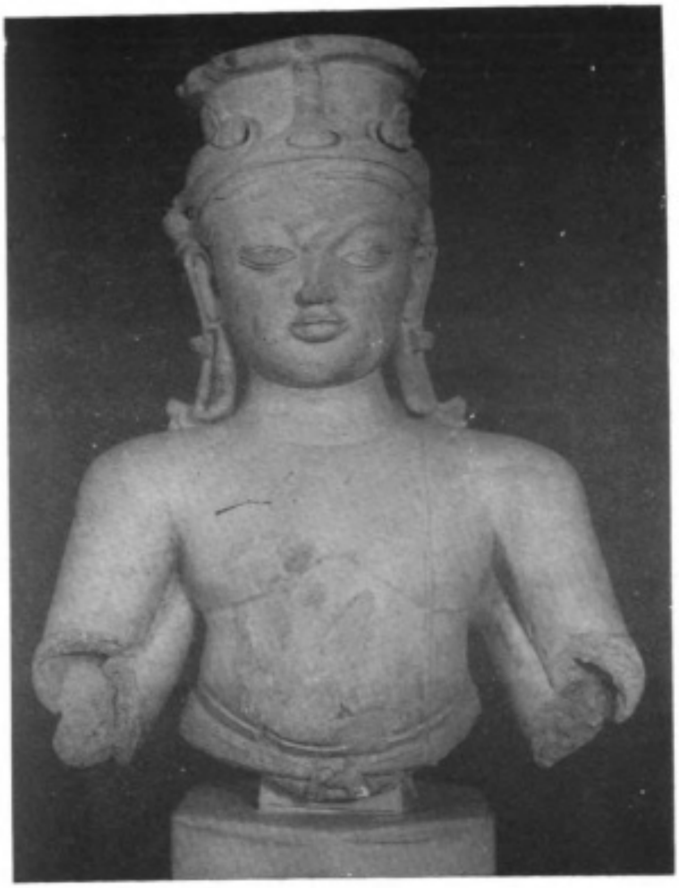
Pl. 35.15. Terracotta plaque with a male figure holding a sword and a shield, Vasu-bihar (copyright: Directorate of Archaeology and Museums, Bangladesh)



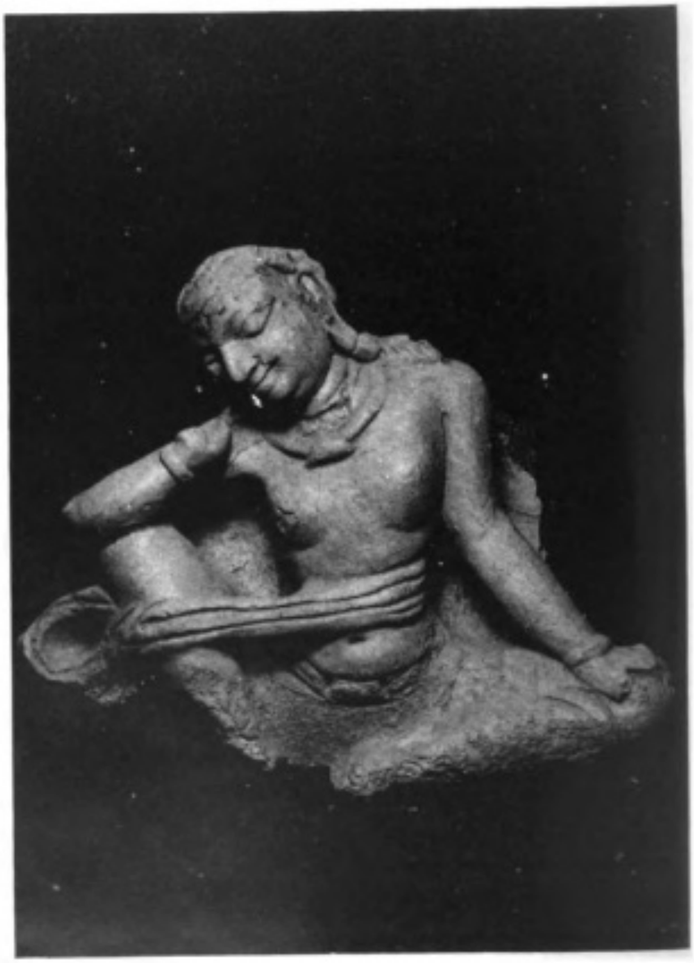
Pl. 35.16. Headless red stone image of Kārttikeya from Skander Dhāp, Mahasthan, now in Asutosh Museum of Indian Art, Calcutta University: (copyright: Asutosh Museum of Indian Art, Calcutta University)



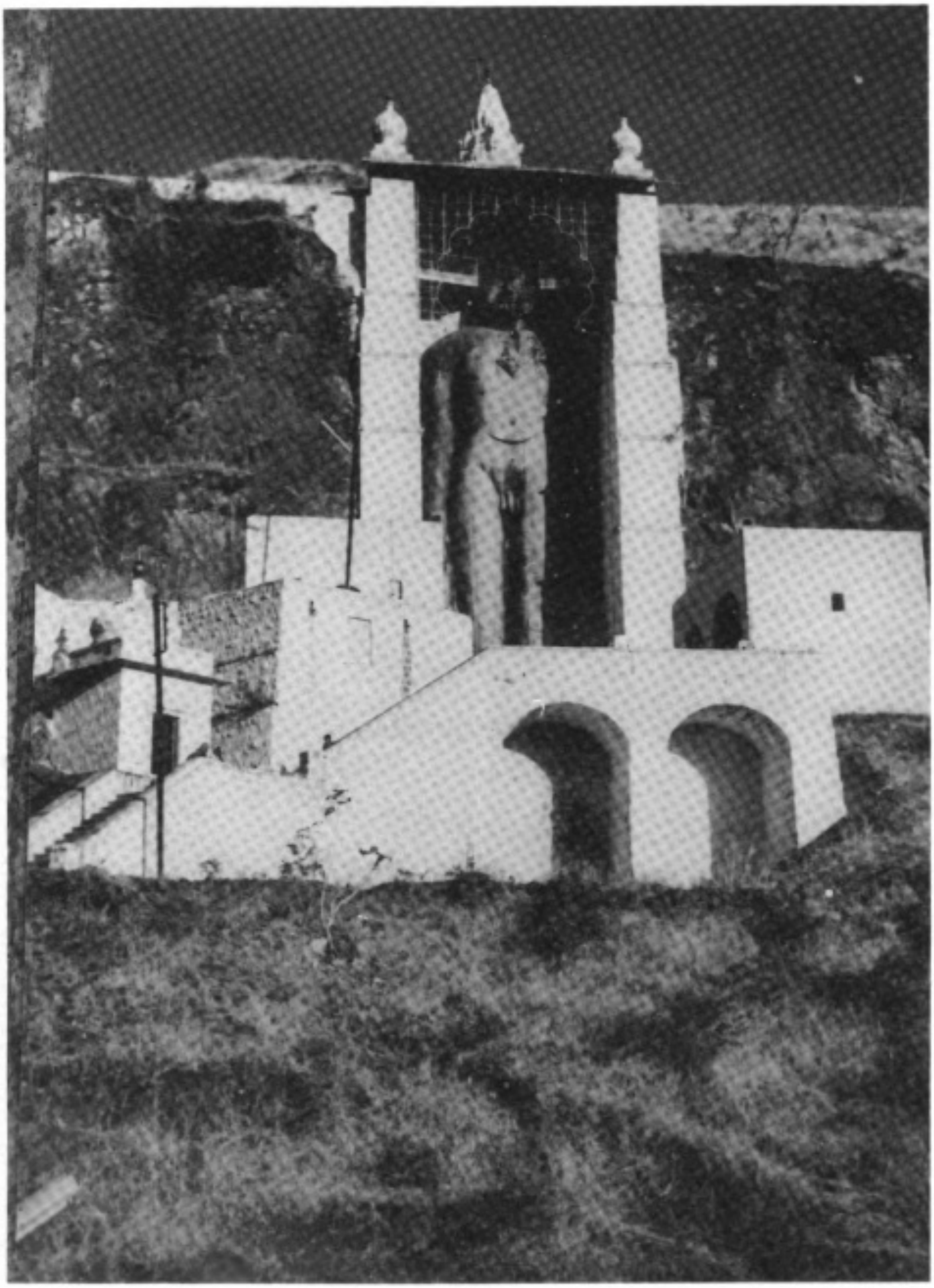
Pl. 35.17. Terracotta heads, Mangalkot (copyright: Directorate of Archaeology and Museums, Bangladesh)



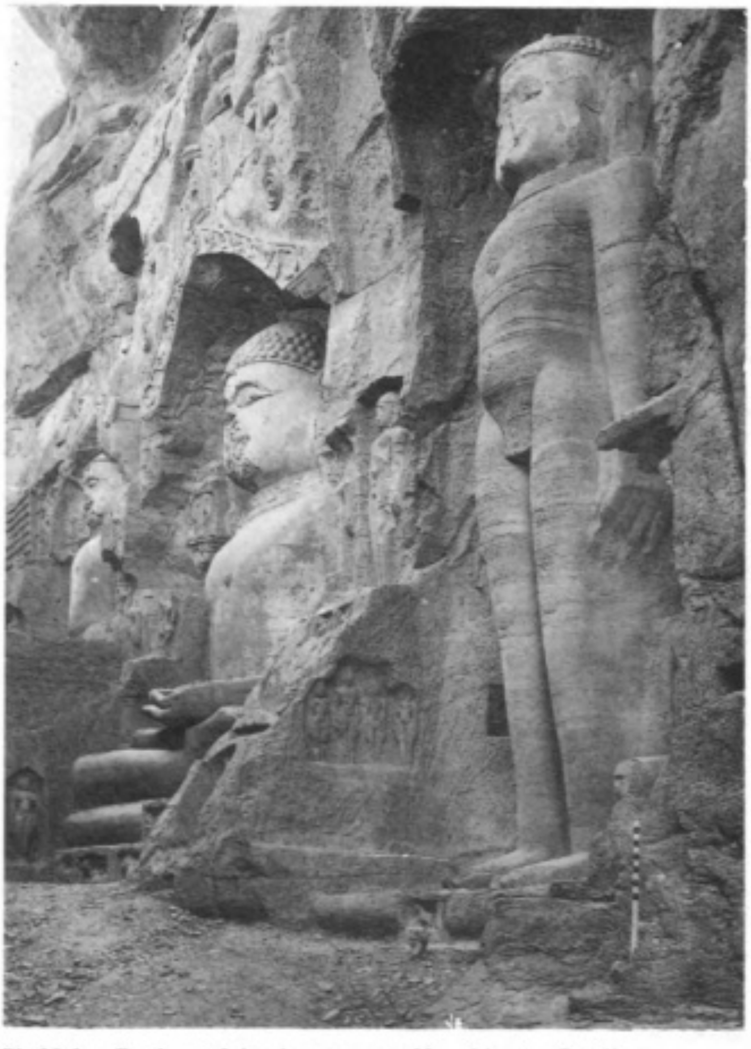
Pl. 35.18. Terracotta upper part of an image of Vishṇu, Kichak area (copyright: Bangladesh National Museum)



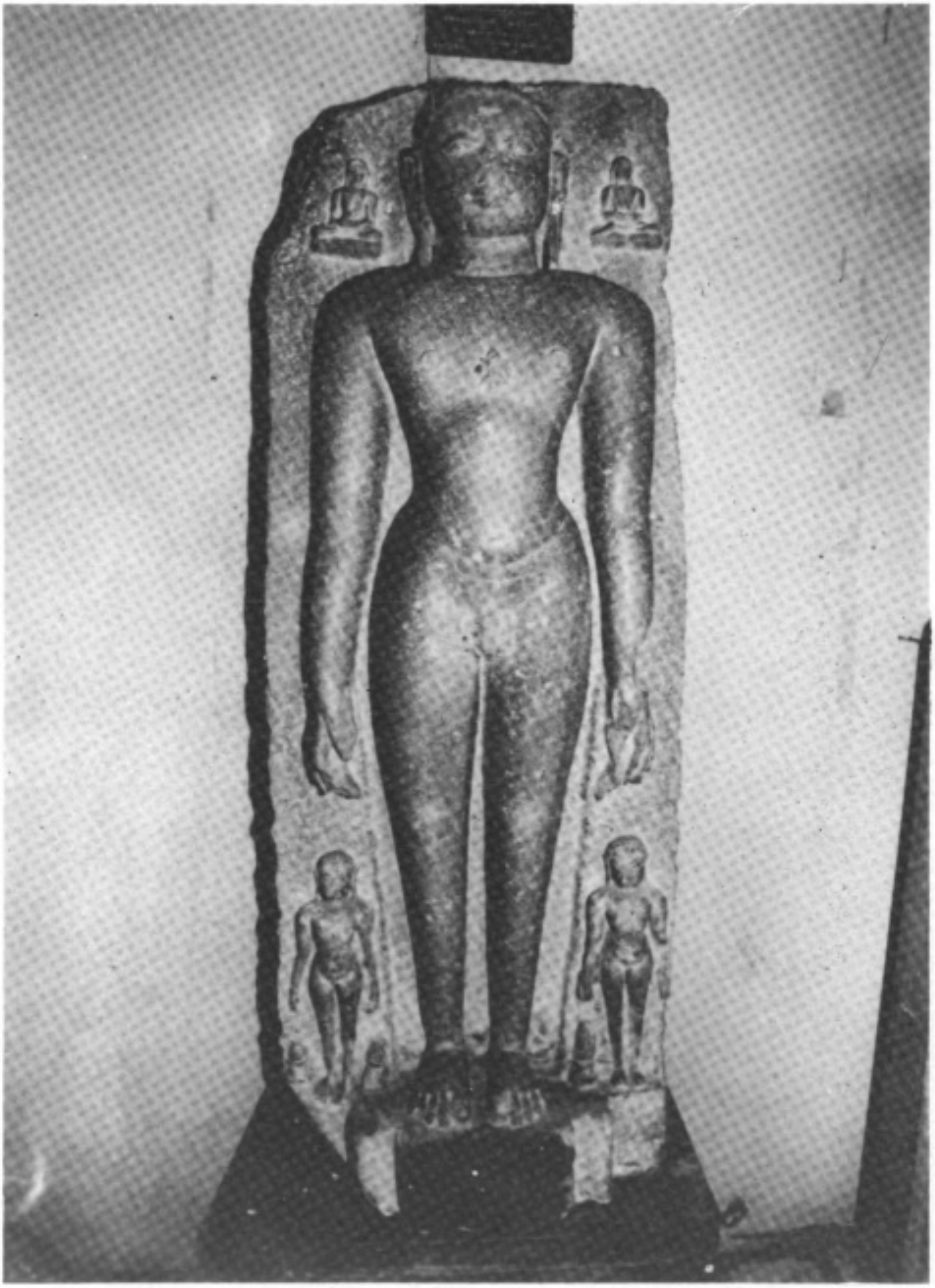
Pl. 35.19. Terracotta seated figure, Palasbadi (copyright: Bangladesh National Museum)



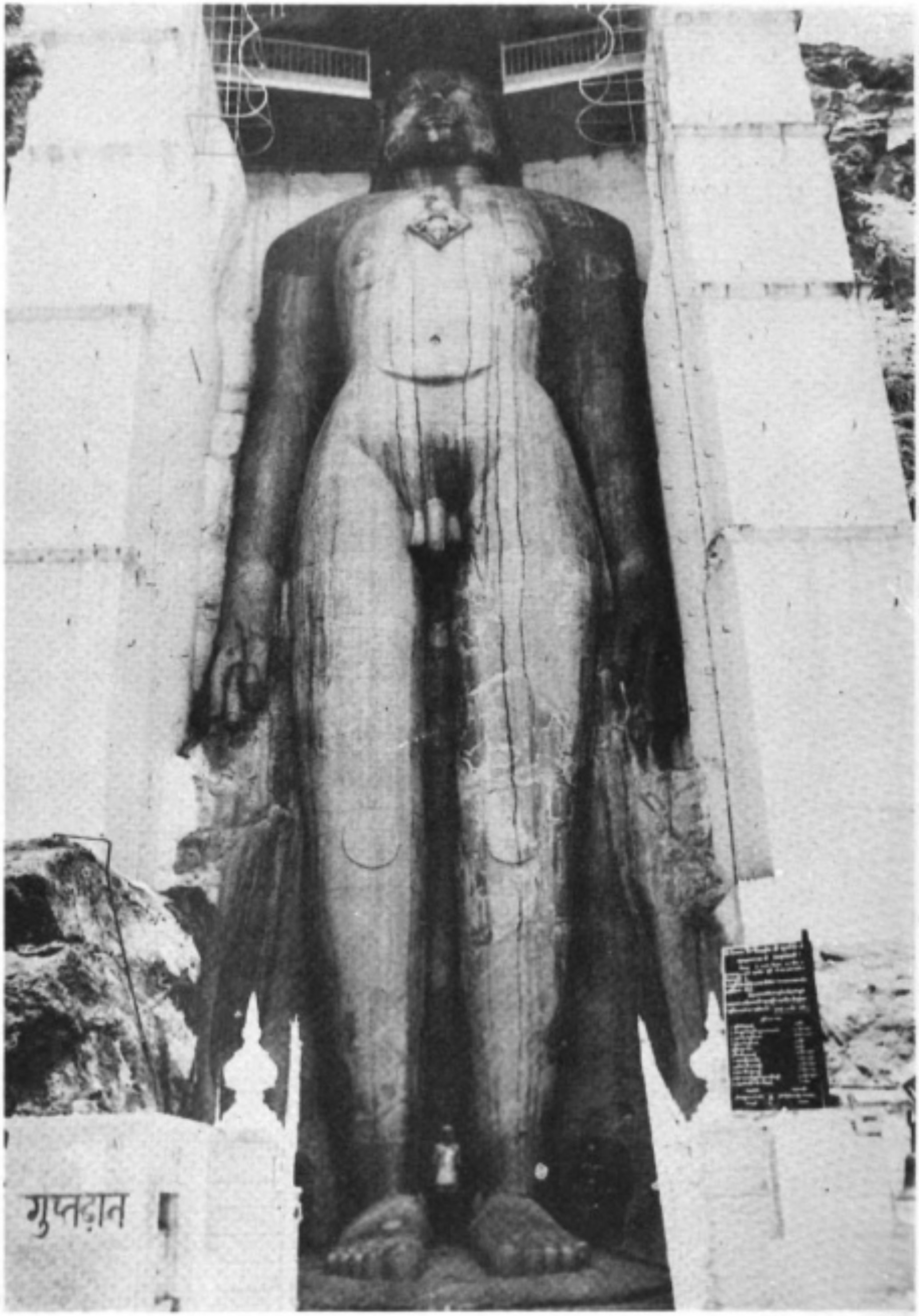
Pl. 39.1. General view of the statue of Ādinātha, locally called Bāwangajā near Barwani, District Khargaon, Madhya Pradesh (photo: R. Sengupta)



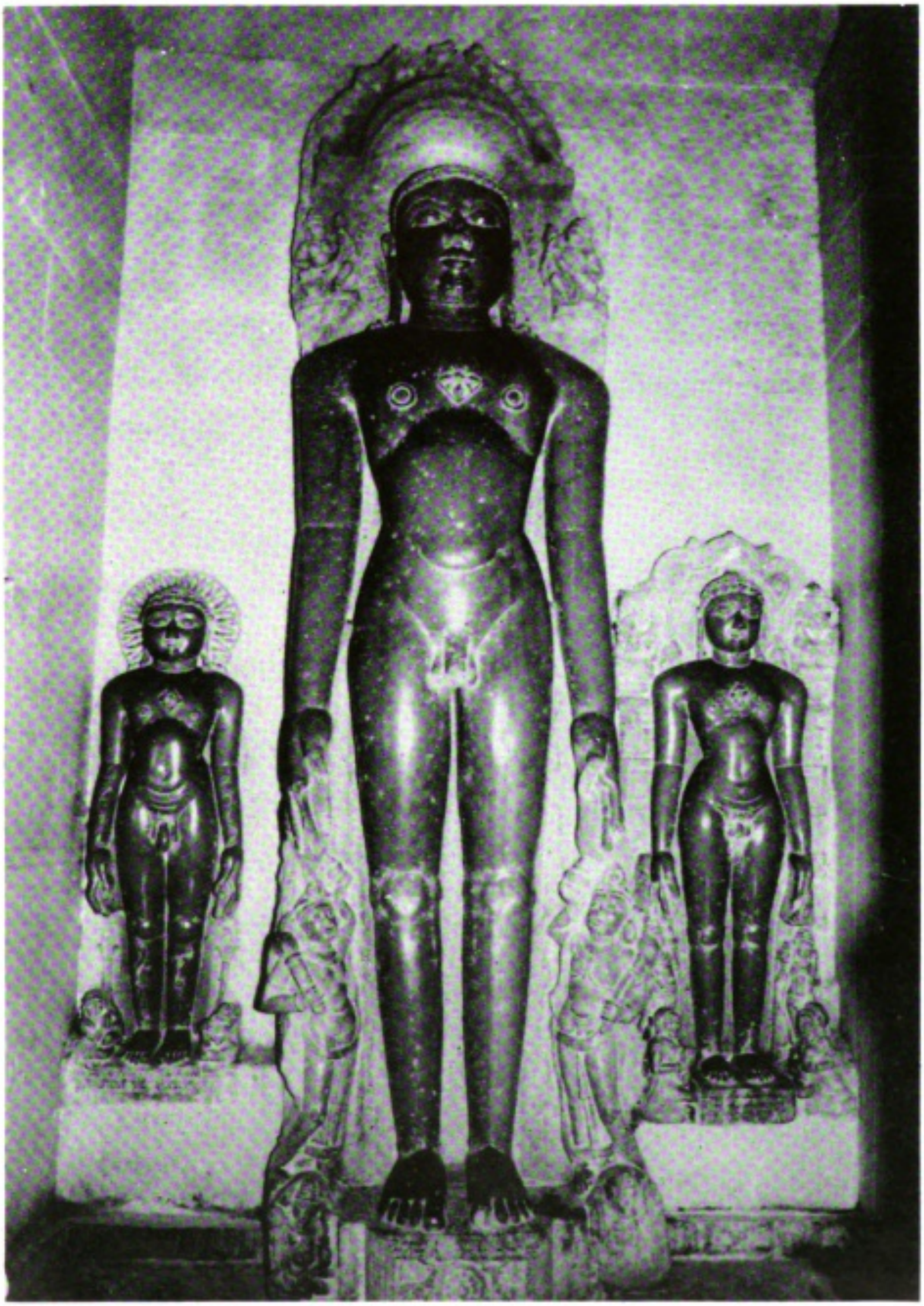
Pl. 39.2. Rock-cut Jaina images near Urwahi gate, Gwalior Fort (copyright: Archaeological Survey of India)



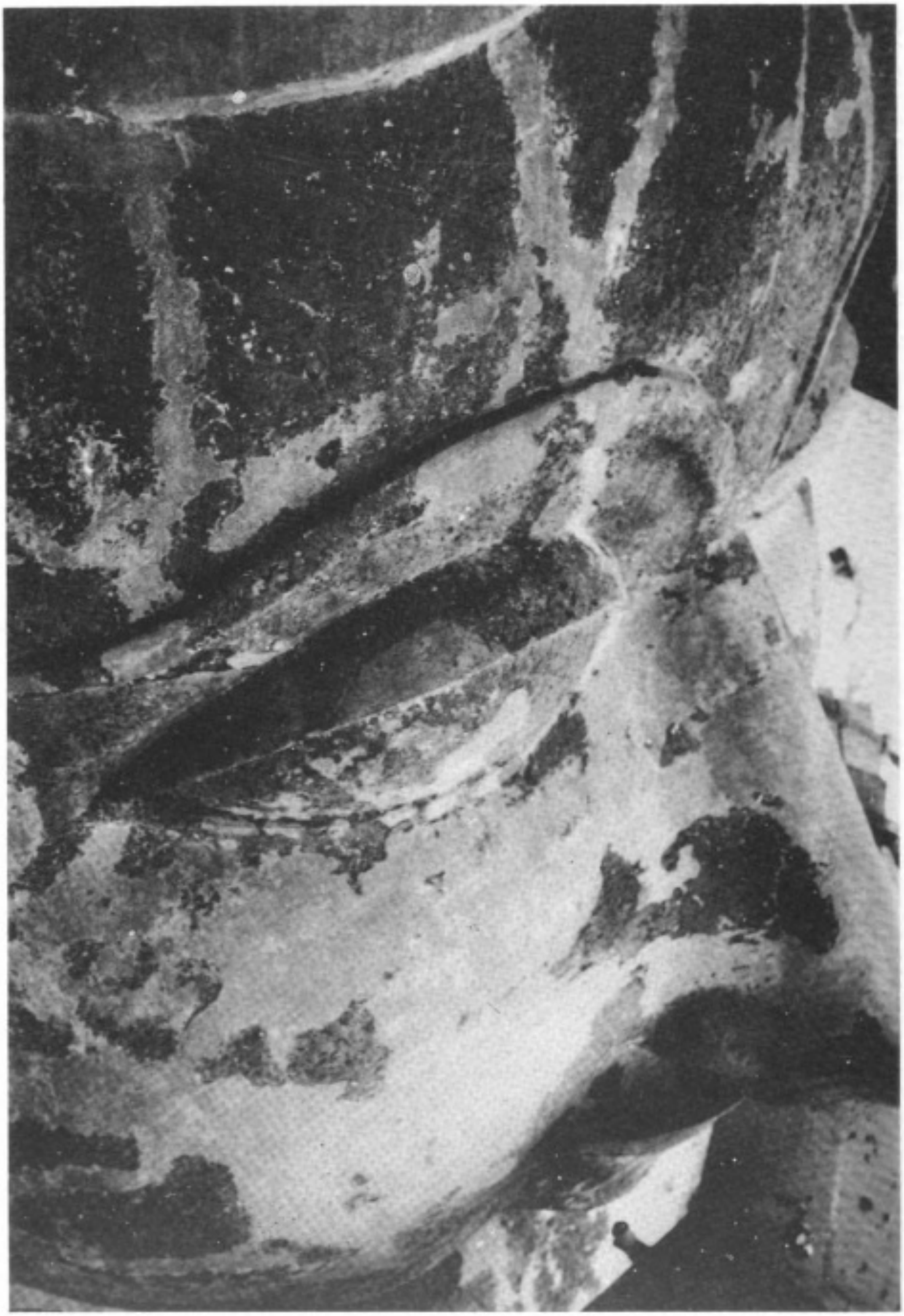
Pl. 39.3. Inscribed Jaina image (12th century A.D.), Un, Madhya Pradesh (copyright: Directorate of Archaeology and Museums, Madhya Pradesh)



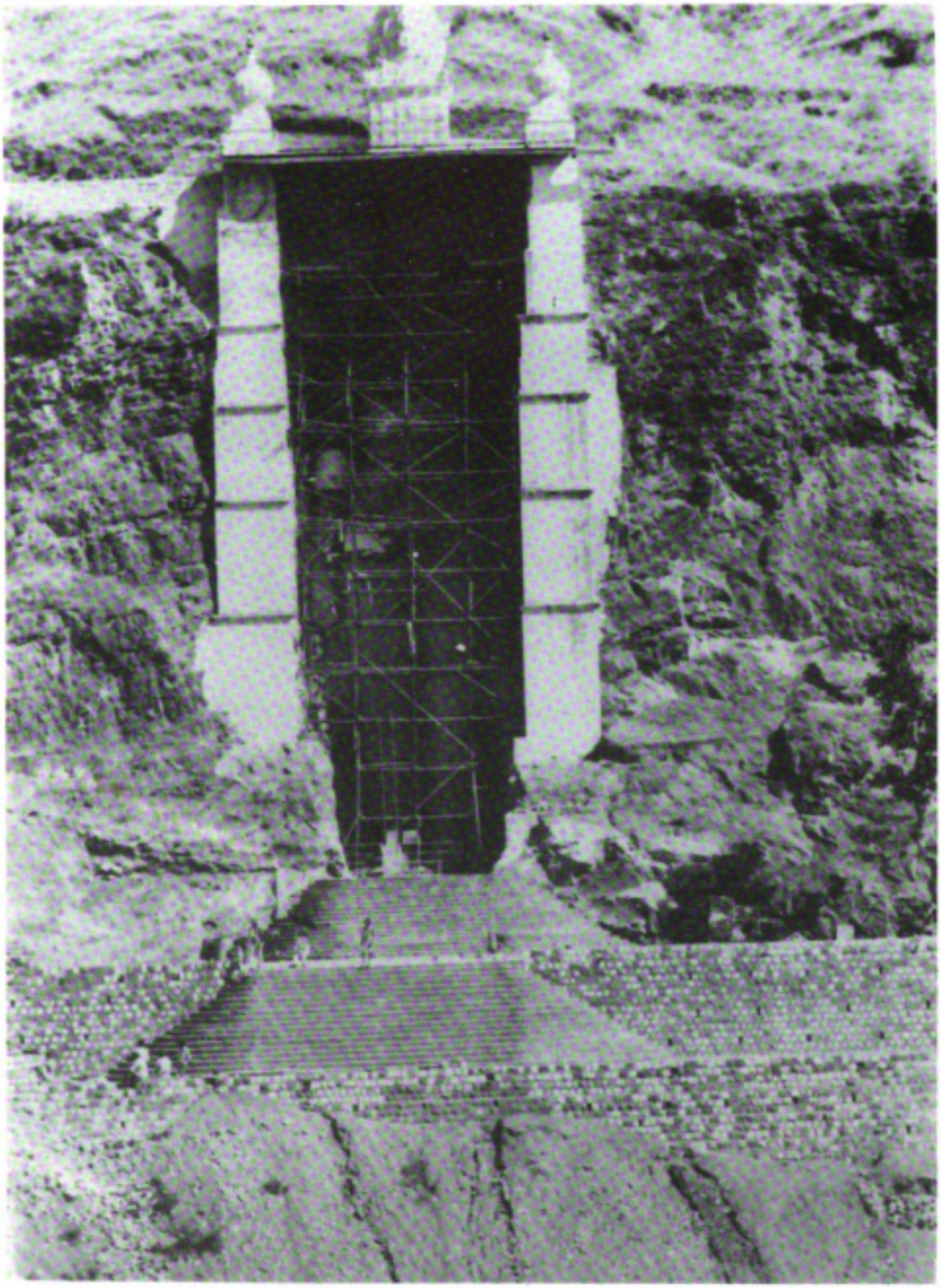
Pl. 39.4. Statue of Ādinātha, locally called Bāwangajā, before preservation (photo: R. Sengupta)



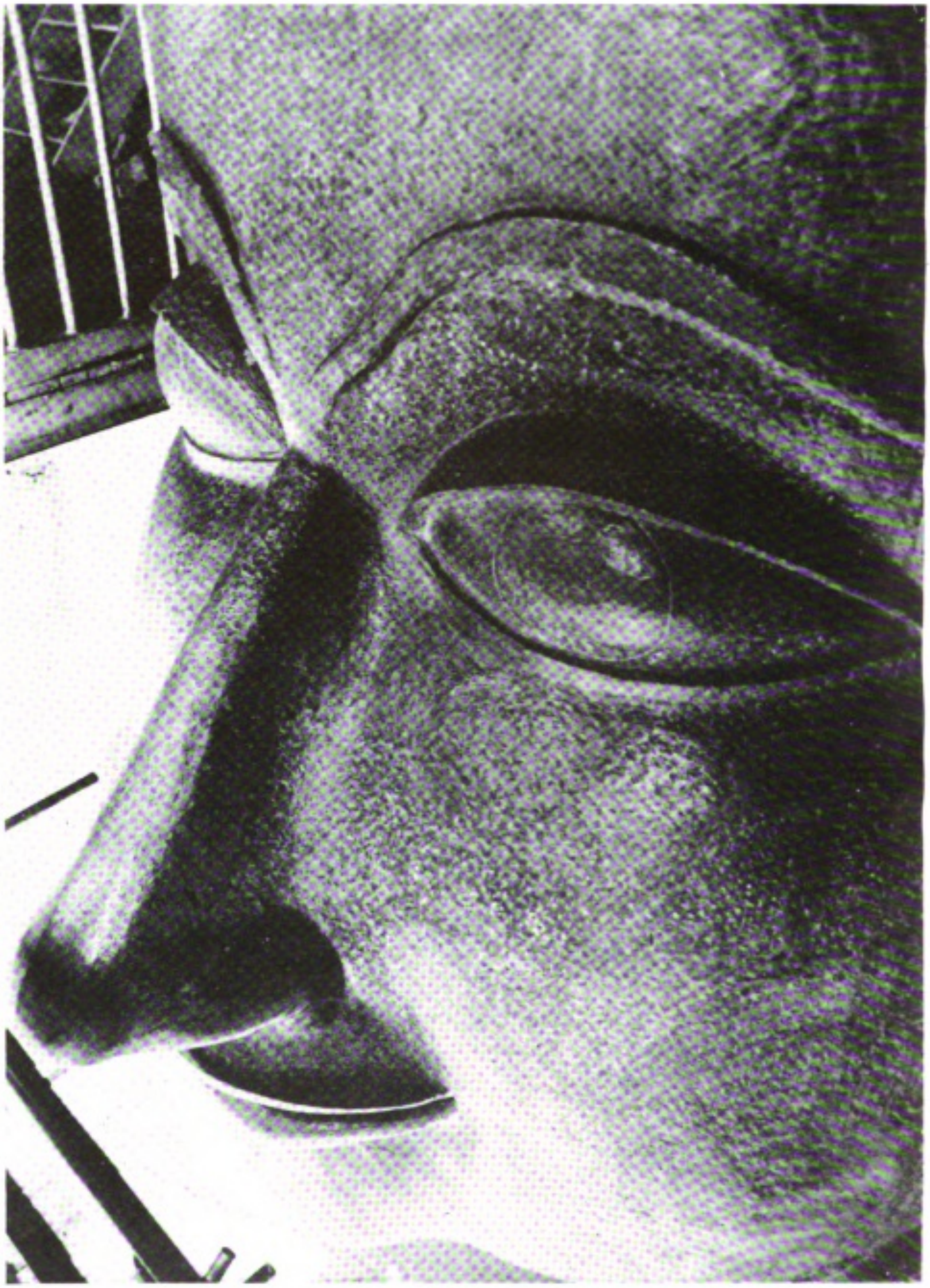
Pl. 39.5. Inscribed Jaina image (14th century A.D.), locally called Naugajā, near Bāwangajā statue (photo: R. Sengupta)



Pl. 39.6. Face of Bāwangajā statue showing past repairs (photo: R. Sengupta)



Pl. 39.7. General view of the shrine of Bāwangajā after reconditioning the platform (photo: R. Sengupta)



Pl. 39.8. View of the face of Ādinātha after treatment by the Jirnoddhar Samiti (photo: R. Sengupta)